

MANAGEMENT OF U. S. NAVY CRYPTOLOGIC
RESOURCES USING MANAGEMENT BY OBJECTIVES

Paul Erners Hargrave

DUDLEY KNOX LIBRARY
NAVAL POSTGRADUATE SCHOOL
MONTEREY, CALIFORNIA 93940

NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

Management of U. S. Navy Cryptologic Resources
Using Management by Objectives

by

Paul Ernest Hargrave

June 1974

Thesis Advisor:

G. L. Musgrave

Approved for public release; distribution unlimited.

7161148

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Management of U. S. Navy Cryptologic Resources Using Management by Objectives		5. TYPE OF REPORT & PERIOD COVERED Master's Thesis June 1974
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Paul Ernest Hargrave		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Postgraduate School Monterey, California 93940		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Naval Postgraduate School Monterey, California 93940		12. REPORT DATE June 1974
		13. NUMBER OF PAGES 120
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) Naval Postgraduate School Monterey, California 93940		15. SECURITY CLASS. (of this report)
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Organizational Goals Objective Setting Management Management by Objectives Objectives		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This thesis is a study of the management process of Management by Objectives and its use as a method for management of U. S. Navy cryptologic resources at the U. S. Naval Security Group Command Headquarters. The thesis is designed to encourage the manager to use management by objectives from the standpoint of a four-phase process, Objective Development, Objective Setting, Implementation of Action and Control and Reporting. Methods and techniques to assist the manager in carrying out this four-phase process have been discussed and		

Item 20 (cont'd)

included. This study has produced a system that managers within the Naval Security Group Headquarters could use as a basis for installing Management by Objectives.

Management of U. S. Navy Cryptologic Resources

Using Management by Objectives

by

Paul Ernest Hargrave
Lieutenant Commander, United States Navy
B. S., University of Maryland, 1969

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the
NAVAL POSTGRADUATE SCHOOL
June 1974

ABSTRACT

This thesis is a study of the management process of Management by Objectives and its use as a method for management of U. S. Navy cryptologic resources at the U. S. Naval Security Group Command Headquarters. The thesis is designed to encourage the manager to use management by objectives from the standpoint of a four-phase process, Objective Development, Objective Setting, Implementation of Action and Control and Reporting. Methods and techniques to assist the manager in carrying out this four-phase process have been discussed and included. This study has produced a system that managers within the Naval Security Group Headquarters could use as a basis for installing Management by Objectives.

TABLE OF CONTENTS

I.	INTRODUCTION	8
A.	PROBLEMS IN MANAGEMENT OF CRYPTOLOGIC RESOURCES	8
B.	MANAGEMENT BY OBJECTIVES	10
C.	SCOPE OF STUDY	13
II.	MANAGEMENT BY OBJECTIVES - DEFINITION AND HISTORY	15
A.	MANAGEMENT BY OBJECTIVES DEFINED	15
B.	MANAGEMENT BY OBJECTIVES REVIEWED	17
C.	MANAGEMENT BY OBJECTIVES AND THE NAVAL SECURITY GROUP COMMAND HEADQUARTERS	20
III.	WHY MANAGEMENT BY OBJECTIVES	22
A.	ADVANTAGES OF MANAGEMENT BY OBJECTIVES	22
B.	MANAGEMENT BY OBJECTIVES WORKS IN PUBLIC ORGANIZATIONS	26
C.	MANAGEMENT BY OBJECTIVES AND THE CRYPTOLOGIC MANAGER	28
IV.	MANAGEMENT BY OBJECTIVES - PROBLEMS AND PITFALLS	30
A.	COMMON PITFALLS OF MANAGEMENT BY OBJECTIVES	30
B.	PROBLEMS OF MBO IN THE MILITARY ORGANIZATION	32
C.	SPECIAL PROBLEMS FOR NAVAL SECURITY GROUP COMMAND HEADQUARTERS MANAGERS	34
D.	MBO CAN WORK FOR NAVAL SECURITY GROUP COMMAND HEADQUARTERS	34
V.	HOW TO MANAGE BY OBJECTIVES	36
A.	MANAGEMENT BY OBJECTIVES AS A FOUR PHASE PROCESS	36

B.	HOW MANAGEMENT BY OBJECTIVES CAN BE APPLIED TO NAVAL SECURITY GROUP COMMAND HEADQUARTERS	41
C.	DEPARTMENTAL USE OF MANAGEMENT BY OBJECTIVES	43
VI.	OBJECTIVE DEVELOPMENT - PHASE ONE	46
A.	LOOKING TO THE FUTURE	46
B.	THE SITUATION ACTION MODEL (SAM)	50
VII.	OBJECTIVE (GOAL) SETTING - PHASE TWO	57
A.	THE OBJECTIVE SETTING PROCESS	57
B.	FORMULATING OBJECTIVES	59
C.	VALIDATING THE OBJECTIVE	66
D.	FORMALIZING THE OBJECTIVES LISTING	68
E.	A GUIDE TO SETTING OBJECTIVES	69
VIII.	IMPLEMENTATION OF ACTION - PHASE THREE	72
A.	GETTING STARTED WITH MANAGEMENT BY OBJECTIVES	72
B.	MOTIVATIONAL AND SITUATIONAL THEORY AND MANAGEMENT BY OBJECTIVES	73
C.	IMPLEMENTING MANAGEMENT BY OBJECTIVES	74
IX.	CONTROL AND REPORTING - PHASE FOUR	81
A.	CONTROL THROUGH MANAGEMENT BY OBJECTIVES	81
B.	ASPECTS OF CONTROL AND REPORTING	82
C.	A GENERAL FRAMEWORK FOR CONTROL AND REPORTING	89
X.	SYSTEM SURVIVAL	95
A.	SYSTEM SURVIVAL EXPLORED	95
B.	MAINTENANCE OF A RESPONSIVE FEEDBACK SYSTEM	95
C.	TRAINING AND MANAGEMENT BY OBJECTIVES	96

D.	REVIEW AND REVITALIZATION OF THE MBO PROCESS	97
E.	TOP LEVEL MANAGEMENT SUPPORT AND INTEREST	98
F.	MANAGEMENT BY OBJECTIVES IS A PROCESS	98
APPENDIX A	SITUATION ACTION MODEL	100
APPENDIX B	MOTIVATIONAL AND SITUATIONAL THEORY OF PEOPLE IN ORGANIZATIONS	102
APPENDIX C	MBO READINESS QUESTIONNAIRE	107
APPENDIX D	OBJECTIVE STATUS CHART	112
BIBLIOGRAPHY		115
INITIAL DISTRIBUTION LIST		120

I. INTRODUCTION

The purpose of this thesis is to review and study the management process of Management by Objectives and to offer rationale in support of this process as a method of future management of naval cryptologic resources at the command level of the U. S. Navy cryptologic force, the Naval Security Group Command Headquarters (HQNAVSECGRU). This first chapter discusses the author's view of problems which face the command element of the Naval Security Group and the application of management by objectives as a systematic approach to minimizing the effects of these problems.

A. PROBLEMS IN MANAGEMENT OF CRYPTOLOGIC RESOURCES

The current and future problems facing the command level management team, which is tasked with directing and controlling U. S. Navy cryptologic resources, are primarily ones which also face many other technologically oriented organizations. These encompass the broad spectrum of technological advances made in the cryptologic field throughout the world and the continuing demand to provide timely and accurate cryptologic support while both manpower and budgetary allocations are being reduced. This observation is made as a result of changes and developments which the author has witnessed in the recent past which include:

1. Severe cutbacks of personnel and field operations by as much as thirty percent in just over two years.

2. The expectation of additional personnel cutbacks as a result of changes in national intelligence collection requirements.

3. The need to develop additional and more advanced signal exploitation resources, both personnel and equipment, to keep pace with the technical advances in the field of electronics. This need is to be accomplished in the face of reducing budgets.

4. The continuing necessity to produce multiple budgetary planning inputs to various Department of Defense organizations.

5. The diversified scope of operations and functions carried out by the various elements of the Naval Security Group.

An additional concern is the output or product of the Navy's cryptologic force. Traditionally a low key operation surrounded by a high degree of security, until recent years the organization's product has tended to be accepted without close appraisal of worth and cost. Today's costs demand that some reasonable standards and measurable results be found which are understood by both the producer and the consumer. Statements of goals and requirements will need to be, in my opinion, more specific and detailed than in the past to insure that the amount of cryptologic support that is necessary for the Navy and the nation can be provided by those who are specialists in the field. It is felt that through use of management by objectives as a management process, this requirement can be better fulfilled and the problems associated with the changes and developments listed above can be substantially reduced.

B. MANAGEMENT BY OBJECTIVES

The management process of Management by Objectives (MBO) can be described as a form of management which provides for a systematic approach by establishing goals and objectives at all levels of an organization and then applying necessary methodology and mechanisms to reach those objectives in a certain amount of time. One of the better summations of MBO was provided by Carvalho in 1972:

Whenever a manager is managing by objectives, the first thing he does is to decide what results he wants to achieve on his job. He establishes priorities for his results, with the most critical or valuable results having the highest priority. Next, he maps a plan for achieving these end results most efficiently and determines when the end results will be achieved. Then he designs his information system so that he will be able to measure progress against results desired. Having done these things, he then activates himself and others to execute the plan. His style of behavior toward subordinates and others with whom he must collaborate can be autocratic, participative, democratic, and so on. As the plan is being executed, his information system provides him the feedback required to determine if the milestones in the plan are being achieved on time and according to specifications. If not, he recycles through the management functions of planning, organizing, etc., as necessary to get back on the path of his target or to head toward a new target if that is more advisable.¹

This short but inclusive description explains the clear impact associated with the use of MBO. It, as a process, offers an approach to problem-solving and objective formulation which, in my opinion, provides the necessary elements of management to assist in the solution of the

¹Carvalho, G. F., "Installing Management by Objectives: A New Perspective in Organization Change," Human Resource Management, p. 24, Spring 1972.

problems facing naval cryptologic managers. Its procedure of critical analysis of organizational situations and assigning individual responsibilities toward objective achievement can result in pinpointing areas for improvement and change. Operational, technical and personnel cryptologic requirements can be reviewed using situation analysis through use of the Situation Action Model (SAM)² to enable the organization to establish or strengthen current control and information systems, lines of responsibility and authority, and performance standards. I feel that the system of mutual review of progress and joint performance evaluation between managers and their superior or subordinate, further enhances planning and controlling of resources and operating actions. This method of mutual review of performance and individual development can provide clarity and direction to a career path for the cryptologic specialist. The naval officer needs to know where he is going and how his career is being developed. Through MBO, this capability is made available.

MBO as a process is quickly finding its way throughout the naval establishment. A recent supporting statement to this effect was made by the Chief of Naval Operations in February 1974: "To be more specific, the Vice Chief of Naval Operations (VCNO), on 4 February 1974, distributed throughout OPNAV and NAVMAT copies of the DOD-wide Fiscal Year 1974

²The Situation Action Model (SAM) is a model developed by Mali (1972) to facilitate analysis of existing situations and develop areas for improvement to pursue through use of MBO. This is covered in detail in Chapter VI.

goals and objectives established in connection with the DOD Management by Objectives program."³ It is considered by the author to be a propitious time for cryptologic managers to become familiar with management by objectives and make use of its advantages prior to possible directives from higher levels to institute the process on a crash basis.

Another justification for using MBO to wrestle with the problems listed earlier, is the recently revised form for evaluation of Naval Officer Performance. A review of the latest instruction concerning, "Report of the Fitness of Officers," BUPERS INSTRUCTION 1611.12D, issued by the Bureau of Naval Personnel on 16 November 1973, reveals that MBO is considered appropriate to improve the evaluation process. More specifically, section 4-11d of this instruction states:

In order to foster a concept of "management by objectives," reporting seniors should seek to establish with each and every subordinate, mutually understood finite objectives for which the subordinate will be held accountable.

Additionally, the actual Report of Fitness Form NAVPERS 1611/1 contains a section in block 29 which is entitled "Goal setting and achievement." The worksheet form 1611/1(W) further breaks down this category into five separate specific areas: Defines realistic goals, Develops plans and priorities, Involves subordinates in planning, Responds positively to changing circumstances and Effectively achieves goals. As a result, it

³From an address by Admiral E. R. Zumwalt, Jr., Chief of Naval Operations, at the 179th birthday luncheon of the Naval Supply Corps, Washington, D. C., 22 February 1974.

behooves the naval cryptologist to take steps which insure his ability to manage in line with this appraisal criteria. The use of management by objectives for managing of U. S. Navy cryptologic resources seems to me to be logical and practicable. The foregoing discussion tends to substantiate this feeling.

C. SCOPE OF STUDY

It was considered appropriate that MBO should be reviewed and studied in the light of the developments discussed in sections A and B above. Additionally, should the process be instituted as the form of management for the Naval Security Group Command Headquarters, this study could prove to be useful to me as a Special Duty Officer in Cryptology and to the Navy.

I conducted the study by first reviewing and thoroughly analyzing the current literature on MBO. The review included looking at MBO from the eyes of a cryptologist and in terms of how the system could be of benefit to the Navy's cryptologic management team. Liaison with individuals and elements of HQNAVSECGRU was maintained throughout the study to align the work with the efforts of individuals involved with the development of a department-level MBO implementation program within the headquarters.

Because of the time frame in which the thesis was prepared, no attempt was made to conduct a pilot program in MBO which could be used to manage naval cryptologic resources. Rather, it was felt more realistic to explore the various facets of MBO and to provide in the thesis a base for further development in the event that MBO is implemented throughout

HQNAVSECGRU. Finally, it was my assumption that the efforts underway in the headquarters by the department alluded to above, may in fact prove to be the pilot project for complete MBO installation by the command. It was with this belief, that the material presented in the following chapters was written.

II. MANAGEMENT BY OBJECTIVES DEFINITION AND HISTORY

A. MANAGEMENT BY OBJECTIVES DEFINED

The concept of management by objectives, often referred to by the acronym "MBO," has been defined by many individuals associated with the field of management, both theorists and practitioners. As a result, nearly as many definitions of MBO exist as there have been writers on the subject. As might be expected, these definitions vary in size, scope and content, and are naturally biased by the background, experience and time during which they were originated. To illustrate this point, the following have been selected as examples of the wide spectrum of interpretation of the MBO concept:

"In brief, the system of management by objectives can be described as a process whereby the superior and subordinate managers of an organization jointly identify its common goals, define each individuals major areas of responsibility in terms of the results expected of him, and use these measures as guides for operating the unit and assessing the contribution of each of its members."⁴

"Management by Objectives (M.B.O.) is a strategy of planning and getting results in the direction that management wishes and needs to take

⁴Odiorne, G. S., Management by Objectives, p. 55-56, Pitman, 1970.

while meeting the goals and satisfaction of its participants. In its simplest form, it is blending individual plans and needs of managers toward a large scale accomplishment within a specific period of time. The primary purpose of such a strategy is to simplify and clarify the managerial process operating within the organization. There are four basic ingredients to the MBO concept: objectives, time strategy, total management, and individual motivation."⁵

"A simple yet comprehensive definition of the MBO system of management includes several major provisions:

1. MBO is a systems approach to managing an organization - any organization. It is not a technique, just another program, or a narrow area of the process of managing. Above all, it goes far beyond mere budgeting even though it does encompass budgets in one form or another.

2. Those accountable for directing the organization first determine where they want to take the organization or what they want it to achieve during a particular period. (Establishing the overall objectives and priorities).

3. Requiring, permitting, and encouraging ALL key managerial and administrative personnel to contribute their maximum to achieving the overall objectives.

⁵ Mali, P., Managing By Objectives, p. 1-2, Wiley, 1972.

4. Blending and balancing the planned achievements (results) of all key personnel to promote and realize the greater total results for the organization as a whole.

5. Providing a control mechanism to monitor progress compared to objectives and feed the results back to those accountable at all levels."⁶

As the foregoing would indicate, the potential user of management by objectives will find it difficult to identify with any single definition when attempting to apply the MBO concept to his organization. Because of this, it is important to recognize that nearly all existing definitions reflect a commonality which serves as the underlying principle of MBO. This is the general agreement in the literature that management by objectives is a systematic form of managing, oriented toward the achievement of goals or objectives which are well formulated and can be expected to be reached during a set period of time. It is crucial, therefore, that any ultimate definition of MBO selected by an implementer and user of the concept contain this basic idea. Equally as important is that this definition be fully comprehended by the individual in the organization directly concerned.

B. MANAGEMENT BY OBJECTIVES REVIEWED

In his book written in 1954, The Practice of Management, Peter Drucker first coined the term "management by objectives," and in so doing

⁶ McConkey, D. D., "Applying Management by Objectives to Non-profit Organizations," S.A.M. Advanced Management Journal, p. 11-12, January 1973.

is credited by writers in the MBO field with having conceptualized the management by objectives system of management.⁷ Since that time, MBO has been developed and implemented in various forms by the many proponents of the concept.

Stimulated by Drucker's proposition that objectives would serve as the instrument for administering and directing a systems approach to managing an organization, practitioners in the management field have developed the concept and directed its application in the twenty years that have followed. According to Reddin, the two men most often identified with the development of MBO are Odiorne in the United States and Humble in the United Kingdom.⁸ Through the efforts of these men and others like them, MBO has found acceptance as a valid form of management throughout professional management circles.

The evolution of MBO during its short twenty year history has been described in terms of a three-stage process.⁹ The initial stage was characterized by an almost complete emphasis toward improving the performance of the individual manager. This was accomplished by furnishing goals toward which his efforts should be directed and by providing some form of recognition for his achievements. The second stage was reached when

⁷Drucker, P. F., The Practice of Management, Harper and Row, 1954.

⁸Reddin, W. J., Managerial Effectiveness, p. 275, McGraw-Hill, 1970.

⁹McConkey, D. D., "MBO - Twenty Years Later, Where Do We Stand," Business Horizons, p. 25-36, August, 1973.

MBO shifted its emphasis from the individual to the organization as a whole, with objectives which were concerned with the overall effectiveness of the organization in the short run. The third stage was reached when the emphasis was redirected to the setting of objectives which concerned the future success and continued life of the organization, through the integration of the individual manager's goals and achievements with the goals and priorities of the organization.¹⁰ McConkey describes the reaching of this third stage as having completed the last milestone in the development of MBO (i.e., when MBO graduated from a special-purpose management tool and technique to a full-fledged system.)¹¹

Today, management by objectives can be found in use in practically every form of organization. The degree of evolution of the system varies throughout the user organizations and is not as complete as one might imply from McConkey's statement. Some continue to use it only as a motivational tool for individual managers, others employ it to achieve results in an annual operating cycle, and others have instituted it as a long term managerial philosophy which permeates the entire managerial structure of the organization. Whatever its present form in an organization, MBO has been used, both successfully and unsuccessfully, by private and public organizations and is currently one of the most popular forms of

¹⁰ Howell, R. A., "Managing by Objectives - A Three-Stage System," Business Horizons, p. 41-45, February 1970.

¹¹ McConkey, D. D., Loc. cit., p. 26.

management (e.g., in a recently conducted survey, of 147 companies interviewed 122 reflected the use of MBO in some form or another.)¹²

In the federal government, MBO has been implemented successfully by the Department of Health, Education and Welfare,¹³ and more recently has found its way into the top levels of the Department of Defense. Some organizations in the Navy have instituted MBO as a management system and reportedly have found it to be an effective form of management.¹⁴

C. MANAGEMENT BY OBJECTIVES AND THE NAVAL SECURITY GROUP COMMAND HEADQUARTERS (HQNAVSECGRU)

The concept of Management by Objectives is not a stranger to the Naval Security Group Command Headquarters (HQNAVSECGRU). As early as 1968, efforts were made to develop an objectives-oriented system within the headquarters. Department heads were urged to become familiar with the MBO concept and were provided limited literature on the subject. No formal program was established. As a result of turnover of military managers in the ensuing years, this initial attempt of introducing MBO was lost to the daily brushfires that inevitably develop in any organization.

¹²Cathey, P. J., "Management Tools: How 147 Top Executives View Them," Iron Age, p. 41-43, July 26, 1973.

¹³Brady, R. H., "MBO Goes to Work in the Public Sector," Harvard Business Review, p. 65-74, March-April, 1973.

¹⁴Naval Supply Systems Command Presentation on the planning system, Executive Data System (EDATS). Presented at the Naval Postgraduate School in April 1974 by LCDR L. Gayton, SC, U. S. Navy.

Although no further official impetus to use the concept is in evidence, MBO in some form or another was likely employed informally within those departments where managers were familiar with the system, but the pressures of every day business appears to have subsumed any attempts at an overall headquarters-wide MBO system. Since that time, general objective setting has been an annual requirement within the headquarters. Each department reviews the previous year's objectives, updates them, and submits them for consolidation into an overall HQNAVSECGRU objectives listing. No supporting MBO system has accompanied this annual review.

In late 1973, it was proposed by a member of a department within the headquarters that his department establish a formal MBO process. This proposal has subsequently been approved and MBO is currently in the implementation phase within that department. I anticipate that this effort may serve as a pilot program for the possible subsequent use of MBO on a headquarters-wide basis.

III. WHY MANAGEMENT BY OBJECTIVES

A. ADVANTAGES OF MANAGEMENT BY OBJECTIVES

The literature about the concept of management by objectives is nearly unanimous in its advocacy for the use of MBO in practically every type of organization. The wide acceptance of this concept by an ever-increasing number of organizations lends validity to the conclusions by its advocates, that as a system of management it has been and can be used to advantage. It is felt that this can be directly attributed to the objective-reaching capacity of the MBO concept.

Successful MBO-using organizations typically reflect this capacity of MBO to reach objectives in a process which facilitates (1) formulating of desired objectives, (2) organizing resources and developing methods to reach desired objectives, (3) determining the constraints which militate against the achievement of desired objectives, and (4) a dedicated effort by the whole entity to work toward the achievement of these objectives. In this manner, the end-product is a planned and systematically developed output not, as can be found in some organizations, a hit or miss firefighting proposition. In other words, it is the system's ability to produce not only results, but those results that were expected and desired, that is MBO's selling point.

The foregoing does not mean to imply that management by objectives is the answer to every problem in organizational management and that it,

like any other human administered program is without pitfalls.¹⁵ In this regard, endeavors to date to provide empirical evidence and scientific measurements of the specific effects which are associated with use of MBO in an organization are limited and somewhat inconclusive (Ivancevich, 1972; Muczyk, 1972; Kirchoff, 1972). This may be explained by what McConkey has described as "any attempt to arrive at the number (of organizations) is complicated by the need for a definition of the degree of MBO which an organization must practice to be included in the data. Moreover, the collection of the data would be further confused because of the uncertainty concerning what MBO is,"¹⁶ and the perennial problems of accurate measurement which social research encounters when it attempts to quantify organizational effects.¹⁷ Nevertheless, the reports of organizations which have employed MBO contain a number of benefits which they consider to have been realized directly as a result of its use. A composite listing is presented below of those considered significant:

1. Better Management Performance and More Accurate Performance Appraisal

Many users of MBO state that better managerial performance is achieved as a result of the MBO process of goal setting and establishment

¹⁵Some of these pitfalls are discussed in Chapter IV.

¹⁶McConkey, D. D., "MBO - Twenty Years Later, Where Do We Stand," Business Horizons, p. 26, August, 1973.

¹⁷Campbell, D. T., and J. C. Stanley, Experimental and Quasi-experimental Designs for Research, Rand McNally, 1973.

of performance measures for an individual manager which are mutually generated and agreed upon by the individual and his superior. In this process, the individual is advised as to the major goals of the organization and those goals that he personally is responsible for reaching. As a result, the manager is fully aware of what performance (goals to be reached) is expected and what criteria are to be used in appraising his performance.

2. Improved Results-oriented Planning

Planning is a complete process under MBO. The objectives are known and the methods for reaching them are supported by both the organization and the managers. Resources of every type (material, personnel, etc.) are considered in any planning which is accomplished for achieving the desired results. Required outside assistance is also identified in the MBO planning process and the various areas of responsibility are clarified.

3. Improved Coordination, Teamwork and Organizational Clarity

Through MBO, coordination, which has been referred to as the "essence of organization"¹⁸ is accomplished through the establishment of well delineated lines of responsibility, supporting agreements and specifically defined areas where coordination will be required. By aligning

¹⁸Reif, W. E., and G. Bassford, "What MBO Really Is," Business Horizons, p. 30, June 1973.

subordinate goals to the overall objectives of the organization, managers become motivated to be "team players" and voluntarily cooperate to achieve results.

4. Improved Control

Control is accomplished under the MBO concept through a scheduled progression toward the objectives one wishes to accomplish. This provides for a status reporting system which produces information timely enough to detect any problems which might detract from meeting the objective. Thus, management information systems under MBO are necessarily geared to provide timely and accurate data which affords feedback and estimates of future expectations to the management team. Such a process provides indicators and danger signals which let the manager know at all times the status of progress in order to implement corrective action, if necessary.

5. Improved Superior-Subordinate Relationships

The mutual goal setting aspects of MBO involving the superior and his subordinate leads to a clear understanding between the two as to exactly what is expected. Whether or not the subordinate actually participates in setting his objectives (which is recommended by MBO proponents) is probably not the significant point here. What is of prime consideration is the common subordinate-superior agreement of what the goal is and what is expected to reach that goal. This face-to-face process sets the tone for increased trust and open communication.

6. Improved Flexibility

Under management by objectives, the manager is made fully aware of his status periodically and has planned standards against which to compare progress. Thus any deviations from benchmarks set to accomplish the goal can be met with early and planned remedial action, if required. This capacity provides flexibility in the overall management process and permits changes throughout the project which keep the original goal within sight.

7. Increased Motivation and Managerial Development

Mali states that "Managing by objectives allows (managerial) development to take place informally, naturally and simultaneously."¹⁹ This is a result of the individual manager acquiring of the knowledge and skills on the job as by-products of his meeting performance requirements. This comment by Mali is likely predicated on the fact that MBO is a system which instills self-discipline to keep sight of the objective. This involvement of the individual is a motivating force to overcome one's shortcomings. As a result, the manager comes to work better motivated to do the best job possible to reach his objective, which in the MBO concept, is compatible, indeed completely integrated, with the organization's goals.

B. MBO WORKS IN PUBLIC ORGANIZATIONS

Management by objectives as a philosophy and system fits very neatly with the needs of the typical private business enterprise. The

¹⁹ Mali, P., Managing by Objectives, p. 9-10, Wiley, 1972.

majority of the literature concerns its application in the business world with the obvious objective for most being to make a profit to ensure survival. What, one may ask, can provide as strong an incentive for its use by not-for profit organizations, such as the federal government? Since MBO is the managing of inputs to produce desired outputs, it may seem difficult to relate it to governmental agencies. This is recognized by experts in the MBO field. Kleber has included government agencies as one of "six hardest areas to manage by objectives,"²⁰ primarily due to the difficulty in measurement of the output of such agencies quantitatively and in some cases, the difficulty in determining the appropriate objectives. The increasing importance of clearly stated objectives in governmental agencies is dictated by increasing competition for scarce resources and high valued alternatives. This suggests that the use of MBO is appropriate to ensure adequate planning and control in the running of these agencies. The most difficult task in this regard appears to revolve around the uncertainty in a federal government organization, resulting from the fact that it is a part of an ever-changing larger institution driven by national and international events and contingencies. Kleber states, that in spite of this difficulty, "one way or another the government agency manager needs to have a clear idea where he is going, how he is to get there and how his performance is judged along the way."²¹ MBO offers a method to establish

²⁰Kleber, T. P., "The Six Hardest Areas to Manage by Objectives," Personnel Journal, p. 572, August, 1972.

²¹Kleber, T. P., op. cit. p. 575.

all of these, as its successful use has shown in the federal government. In particular, MBO has been employed to advantage by the Department of Health, Education and Welfare as indicated by Brady.²² A representative list of benefits reported as a result of the use of MBO over a three year period at HEW include:

1. Increased by 50% the number of import products inspected, using existing resources.
2. Retrained more than 40,000 welfare recipients and offered them productive futures by taking them off welfare and getting them jobs.
3. As a longer term benefit, HEW reports improved overall management has been achieved as a result of MBO.

HEW's experience is one of a number of federal civilian and military organizations which have reported better results through use of MBO. The profit incentive may be lacking, but clear definition of objectives and the methods for realizing them can be done with creative thinking and an honest interest in getting the job done more effectively with a sense of direction and control.

C. MBO AND THE CRYPTOLOGIC MANAGER

The foregoing section has application to the HQNAVSECGRU organization and its rather unique managerial problems brought about by security, routinization of the handling of classified information and the annual

²²Brady, R. H., "MBO Goes to Work in the Public Sector," Harvard Business Review, p. 65-74, March-April, 1973.

budgetary program cycle which is confused by the need to coordinate budget submissions with a Department of Defense agency and the Navy. This additional muddying of the waters in the already fluid governmental planning, programming and budgeting process (PPB), demands the employment of a system which provides direction, control, short and long range goals and assigns responsibility with commensurate authority. This does not mean to imply that these things are not being accomplished today, but as the history of MBO in the headquarters indicated, the embryo is already in existence from which to expand into a fullfledged and successful MBO management process.

The cryptologic manager is usually dealing with a product that is difficult to quantify. However, it has become an absolute requirement to be able to have a product that is measurable in terms that can be understood by both the consumer and producer of that product. In the case of NAVSECGRU, this is dictated even more so due to the high cost of cryptologic operations. Since both National and Navy entities receive support from the Navy cryptologic force, a means which provides for a realistic understanding of the resources required to furnish any given level of cryptologic support is needed. It is considered that this need can be fulfilled through MBO, with its built-in capability to identify objectives and measure the results of an organization in understandable units of outputs.

IV. MANAGEMENT BY OBJECTIVES PROBLEMS AND PITFALLS

A. COMMON PITFALLS OF MBO

Commencing with Chapter V, the text will be concerned with the implementation, administering and maintenance of the overall MBO process. Before one discusses these subjects, however, it is considered important to reflect on the pitfalls and traps which have led to the unsuccessful application of MBO by some organizations. The rationale for this consideration, lies in the belief that before any MBO process can be instituted which has as its objective to be a viable and useful system, those involved should be aware of the common problem areas which have led to the demise of various MBO programs in the past.

Probably the most comprehensive listing of pitfalls compiled to date is contained in an article written in 1972 by McConkey entitled "20 Ways to Kill MBO."²³ Because of their completeness they are listed below as an aid to the reader:

1. Considering MBO a panacea.
2. Lacking participation by subordinates in setting objectives.
3. Leaving out staff managers.
4. Delegating executive direction of the program.
5. Creating a "paper mill" with forms and procedures.
6. Failing to provide feedback to the individual manager.
7. Emphasizing techniques over the system.
8. Implementing too quickly.
9. Failing to reward performance.

²³McConkey, D. D., "20 Ways to Kill MBO," The Management Review, p. 4-13, October, 1972.

10. Having objectives which are not supported by adequate plans.
11. Failing to revise the system based on experience.
12. Being impatient for results.
13. Endeavoring to overquantify objectives.
14. Stressing objectives instead of the system.
15. Dramatizing short term objectives.
16. Omitting periodic reviews of performance.
17. Omitting refresher training with respect to refinements and managers new to the system.
18. Failing to blend individual objectives into the whole.
19. Managing with necessary "guts."
20. Lacking ability or willingness to delegate.

Varney approaches the pitfall problem from a slightly different tack in his book on MBO.²⁴ He lists symptoms of traps that organizations have fallen into, which he has observed over a period of years in his dealings with implementing of management by objectives systems. Some of those considered pertinent to this discussion are listed below in synopsis form:

1. "The Busy, Busy Pitfall." This is characterized by managers always being "too busy" to make MBO work. MBO must be considered as any other managerial work before it can be used as a system.

2. "You Change and I Won't." The symptom of this trap is when the manager pays "lip service" to the MBO program, but provides little else. A manager must be involved to make the system work in his organization.

3. "The Perfectionist." The perfectionist is constantly reworking the details of the program and as a result, MBO never gets properly implemented. Infinite detail can strangle MBO the same as any other system that must be kept versatile.

²⁴Varney, G. H., Management by Objectives, The Dartness Corporation, p. 21-22, 1971.

4. "Once and For Always." One of the best qualities of MBO is its design for adapting to change. Be careful not to lock up the system by one way direction.

5. "Copycat." Don't look to apply someone else's plan. All organizations are different and MBO plans must reflect this in order to be flexible and fit the organization in which it is being used.

It is not intended to belabor the foregoing points at this juncture since material in subsequent chapters will deal with each to a certain degree when discussing ways and methods to assist in recognition of pitfalls which one encounters in his MBO efforts from time to time. Early recognition of these pitfalls is mandatory if one is to avoid the summation over time of many minor pitfalls into a major irreversible problem area.

There are, however, certain pitfalls against which a military organization should be particularly alert. The following section is included to provide a discussion of those of significance.

B. PROBLEMS OF MBO IN THE MILITARY ORGANIZATION

When one pictures a military organization, the immediate thought might be one of a tightly controlled organization with clear rules and regulations on what can and cannot be done. One visualizes a hierarchical structure with well defined lines of authority and responsibility. It would seem a natural for the easy application of an MBO system designed to set goals and organize resources to attain those goals.

What one often finds, however, is that there are a few potential pitfalls associated with a military organization which must be recognized.

One of these that has been and will likely remain a problem by the very nature of the service is the high rate of managerial personnel turnover. The Navy, for instance, historically has maintained a rotation system to purportedly afford officers opportunities for gaining well rounded experience by shifting them between various functions. This creates not only a problem of continuity in an organization, but increases the amount of training required to maintain a satisfactory level of managerial competence.

Another problem connected with the turnover problem in the military is reflected in the pitfall of being impatient for results. This stems directly from the relatively short period of time one has to prove himself in an organization before being transferred elsewhere. Military managers want results to happen during their tour of duty. Therefore, the organization that uses an MBO process must design the system so that managers within the system do not strive to reach their individual goals at the expense of the organizational goals. This kind of suboptimization is one of the outcomes that MBO wants to avoid.

The military manager, then, must be alert and in some instances more alert than his civilian contemporary to the pitfalls of instituting and using MBO. It will be just as difficult a task as any other organization might experience. Thus, one should not assume that because of the structured nature of the military that MBO is an easy system to use. This mistake could lead to a far worse organizational situation than the one the MBO system was designed to replace.

C. SPECIAL PROBLEMS FOR HQNAVSECGRU MANAGERS

An organization with normal problems and constraints facing it will find that MBO will take a significant amount of effort. The manager, whether top or departmental level, in HQNAVSECGRU, will likely find problems of a special nature. These may develop as a consequence of dealing with classified material on a routine basis and the other rather unique situations described in Chapter III.

The problem with classified information for the MBO manager is that separate systems will likely be required to ensure data can be readily available in both classified and unclassified forms to respond to the various levels of programming under PPBS.

Should MBO be instituted in HQNAVSECGRU, the foregoing problems will need special attention and time to avoid problems which might discourage the continued use of MBO under the rationalization "it can't be used here because of our unique situation."

D. MBO CAN WORK FOR HQNAVSECGRU

The previous sections of this chapter, as originally indicated, were meant to provide an organization contemplating use of MBO with a number of amber lights which might minimize and possibly avoid major problems which could lead to an unsuccessful experience with MBO. The calculation has been that this discussion would not detract the reader from actually moving ahead with MBO. MBO is not a panacea for every organizational management problem, and thus must be considered carefully before rushing headlong into uncharted waters. Some organizations just do not have the

resources available, the managerial talent available nor the need for elaborating on what may already be the best possible under the constraints at hand. As previously indicated, it is considered that the talent, interest and resources are all available within HQNAVSECGRU to make MBO work.

With this in mind, the succeeding chapters have been constructed to provide assistance, guidance and some methods which have been successful in the past in avoiding many of the pitfalls described above. In so doing, it is hoped that a successful MBO process can be facilitated for anyone who might choose MBO as his method of management.

V. HOW TO MANAGE BY OBJECTIVES

A. MANAGEMENT BY OBJECTIVES AS A FOUR-PHASE PROCESS

Under management by objectives, the primary requirement for ensuring a successful program which gets those results that are both planned for and expected is the manager's ability to grasp how management by objectives really works. Nothing is more disappointing than to observe an organization with the potential for producing successful results get caught in the trap of reacting to problems rather than anticipating them.

Management by objectives is a process of planning which is anticipatory in nature. Hence, it calls for planning ahead. Since this may be easier said than done in some organizations, how can a manager approach the idea of management by objectives as his management system. The answer lies in one of the basic ideas of MBO: deliberate time-phased planning. What this implies is that a manager can accomplish his total set of objectives by applying a systematic and phased approach to his managing process. This is somewhat analogous to the process of building a ship. Certain phases of the production follow one another logically and result in an ordered sequence of events. It would be ridiculous to assume that a ship would be built without the keel being laid early on in the total process. Yet, one can find organizations that are managed using similar logic, or better yet, non-logic. MBO allows the manager to direct his organization's effort systematically, with reason and purpose.

Practitioners in the management field vary in the exact method they recommend to implement management by objectives. Nonetheless, they are nearly uniform in their recommendations for the use of a phasing concept for effecting a practical system. Basically, the overall process can be described using four distinct phases, which include:

1. Objective Development.
2. Objective (Goal) Setting.
3. Implementation of Action.
4. Control and Reporting.

Figure 1 provides a visual presentation of these phases and the necessary steps within each phase considered essential for adequate MBO application. As will be seen in subsequent chapters which discuss each of the four phases individually, this flow chart permits a sequence of actions which permit a complete start to finish cycle. Recycling and repeated iterations within the phases and between phases is also allowed. A capsule description of each phase is provided at this point to set the stage for later involvement in succeeding chapters:

1. Phase One - Objective Development

As has been alluded to previously, the management by objectives process begins with a systematic development of objectives which are desired by the organization to provide for improvement, problem solution and survival. If growth of the organization is expected or desired, then this must also be considered. The process starts with an analysis of the organization as it currently exists. Analytical queries concerning

situations such as: where are we, where are we going, what are our deficiencies, how can we improve, can we survive, and so forth, are raised. Broad categories of desired objectives are originated including such things as improved service or support, cost effectiveness, increased training, improved techniques or methods of operation, motivation of personnel and increased satisfaction of the consumer in the output of the organization. In the case of governmental agencies, the actual definition of the output is often one of the most difficult of tasks to be done, but it is essential that this be accomplished during this initial phase of the program. It is important that this phase be given sufficient time and effort, since any positive action in subsequent phases will be predicated on the insight and direction provided as a result of the work carried out here. Mali has said this is important because "it is during this stage that drift, aimless tendencies, or incorrect directions are noted, stopped and redirected."²⁵ Chapter VI is concerned with actual methods which can be employed to successfully complete Phase One.

2. Phase Two - Objective (Goal) Setting

Once the categories of broad and potential objectives are generated through Phase One, the next step in the process lies in the transformation of these into an actual set of formal objectives which are considered to be valid, measurable and reachable. This formal statement is produced as a result of participation by key personnel in the relating of

²⁵Mali, P., Managing By Objectives, p. 13, Pitman, 1970.

organizational resources with expected participation and responsibilities of those involved. These objectives are then subjected to verification and validation methods which determine the degree of certainty of achieving these objectives. It is essential to the objective setting procedure because it focuses on the resources, materials, personnel, facilities and management which will be required to assure a high degree of confidence toward accomplishing the objective. In other words, it is a detailed look at the objectives to avoid the mistake of chasing an unattainable goal or using resources inefficiently.

The objective setting phase gets the entire organization involved and if done properly leads to involvement of the people who are accountable for the achievements of the objectives. Detailed discussions of this phase is contained in Chapter VII.

3. Phase Three - Implementation of Action

This phase follows from the objectives which have been set in Phase Two. It is here that the method and motivation for getting these objectives accomplished is created. This phase is probably the most crucial because it is here that the formation of a results-oriented attitude by the members of the organization takes place. The literature is strongly aligned in its opinion that successful implementation demands that all personnel involved have a positive results-oriented attitude. Terry goes as far as to offer the opinion that MBO can only work if an organization has sufficient numbers of individuals possessing a high Zeigarnik effect

(compulsion to complete a task or accomplish any given result).²⁶ Job descriptions, job plans and work activities are developed which include the motivation for results and the ability to carry out the action required to fulfill the objective. In this regard, MBO has been described as a motivational strategy which involves individual commitments leading to accomplishments that produce higher levels of personal satisfaction.²⁷ For this to be an accurate statement, this phase of the program must produce the atmosphere and attitudes which make the implementation of actions to accomplish the objectives, a natural and comfortable endeavor. Chapter VIII provides details concerning Phase Three.

4. Phase Four - Control and Reporting

Being aware of progress made toward an objective is a key to ultimate success. The need to establish standards and milestones which provide accurate estimates of progress should be obvious at this point. Yet, this is pointed out as a major problem and experts in the field continually find situations in which the standards were poorly set, the management information system was not designed to provide timely and pertinent data, and the periodic reporting system degenerated to a paper

²⁶Terry, G. R., Principles of Management, p. 51, Irwin, Inc., 1972.

²⁷Elster, R. S., W. Githens and G. Musgrave, "Personnel Development and Evaluation System," U. S. Naval Postgraduate School, Technical Report, Forthcoming.

drill involving filling the blanks with guesswork.²⁸ Deviation from valid standards has to be known by managers early on in the process. Feedback and reports of expected progress is the essence of controlled activity. Status reporting is thus an integral part of this phase. Chapter IX deals with the essential elements of Phase Four.

B. HOW MANAGEMENT BY OBJECTIVES CAN BE APPLIED TO HQNAVSECGRU

The foregoing section outlines generally the four phase process that is considered appropriate for using MBO in an organization. As previously indicated, it is opined that this process can be applied as a management system to advantage by HQNAVSECGRU. The basic reason for the opinion lies in the fact that the impetus and groundwork for conducting Phase One of this process, objective definition, has been in existence for a number of years in the form of the annual objectives list prepared by that headquarters. This can provide the embryo for the development of objectives along the lines of that described in the discussion concerning Phase One above. From these can follow the steps that are discussed in later chapters.

It is recognized that the rather unique situation that faces the Navy's cryptologic managers will require special attention in the areas of security, classification of data and budgeting. The significance of the four phase MBO system for the headquarters is that it can follow naturally from previous work already done and refine the process of directing the efforts of the headquarters management team.

²⁸Raia, A. P., "A Second Look at Management Goals and Controls," California Management Review, p. 49-58, Summer 1966.

In this regard, one of the necessary elements of Phase One is to take a look at the organization as it exists to validate its appropriateness to current and future management requirements, and if it is not appropriate, to develop the organization accordingly. This process of organization development has been referred to as OD which describes the study of an organization, particularly human resources, aimed at finding and improving present and future weaknesses.²⁹ This process is often considered to be a separate and unique system of organizational management improvement.

In an article published in 1972, Beck and Hillmar summarized their findings about OD and MBO in the statement "If you are implementing either concept successfully, you are probably also implementing the other satisfactorily whether you put a label on it or not."³⁰ The basis for this conclusion was that OD and MBO are built on similar philosophies; goal setting, and meaningful goals to develop the human resources of the organization. Beckhard states in his book on organization development: "One of the major assumptions underlying Organization Development efforts and much managerial strategy today is the need to assume that

²⁹ Cathey, P. M., "Management Tools: How 147 Top Executives View Them," Iron Age, p. 43, July 26, 1973.

³⁰ Beck, A. C. and E. Hillmar, "OD to MBO or MBO to OD: Does it Make a Difference?" Personnel Journal, p. 827, November, 1972.

organizations are managing against goals. Healthy organizations tend to have goal setting at all levels."³¹

Because of the basic assumption that any organization that is willing to institute an MBO system along the lines of the four phase process discussed above, it is felt that OD and MBO go hand in hand in satisfying the overall requirement for organizational improvement. In other words, organization development and management by objectives necessarily complement one another and thus it is concluded that if any organization has MBO it has OD. Thus, HQNAVSECGRU can use MBO to provide for organization development.

C. DEPARTMENTAL USE OF MANAGEMENT BY OBJECTIVES

One of the most often stated requirements for MBO to be successful is for the entire large organization to make use of the process and for top management to be directly involved in its use and direction. This, however, should not discourage its use at a lower level within the organization on an individual unit basis. Varney in his book states that "MBO is for anyone who manages, regardless of level or position he occupies."³² What is implied here is that any manager with a desire to manage using goals and objectives, can use the system as described in the succeeding

³¹Beckhard, R., Organization Development: Strategies and Models, Addison-Wesley, 1969.

³²Varney, G. H., Management by Objectives, The Dartnell Corp., p. 6, 1971.

chapters to advantage, whether or not the entire organization has adopted the system. It has been observed that a successful application of MBO at a lower level in the organization often is the impetus for its application to the whole.³³ Lower level managers are therefore encouraged to use the positive characteristics of MBO to assist in solving management problems and to improve the management process within their own entity.

³³Ibid, p. 39.

FOUR PHASE PROCESS OF MBO

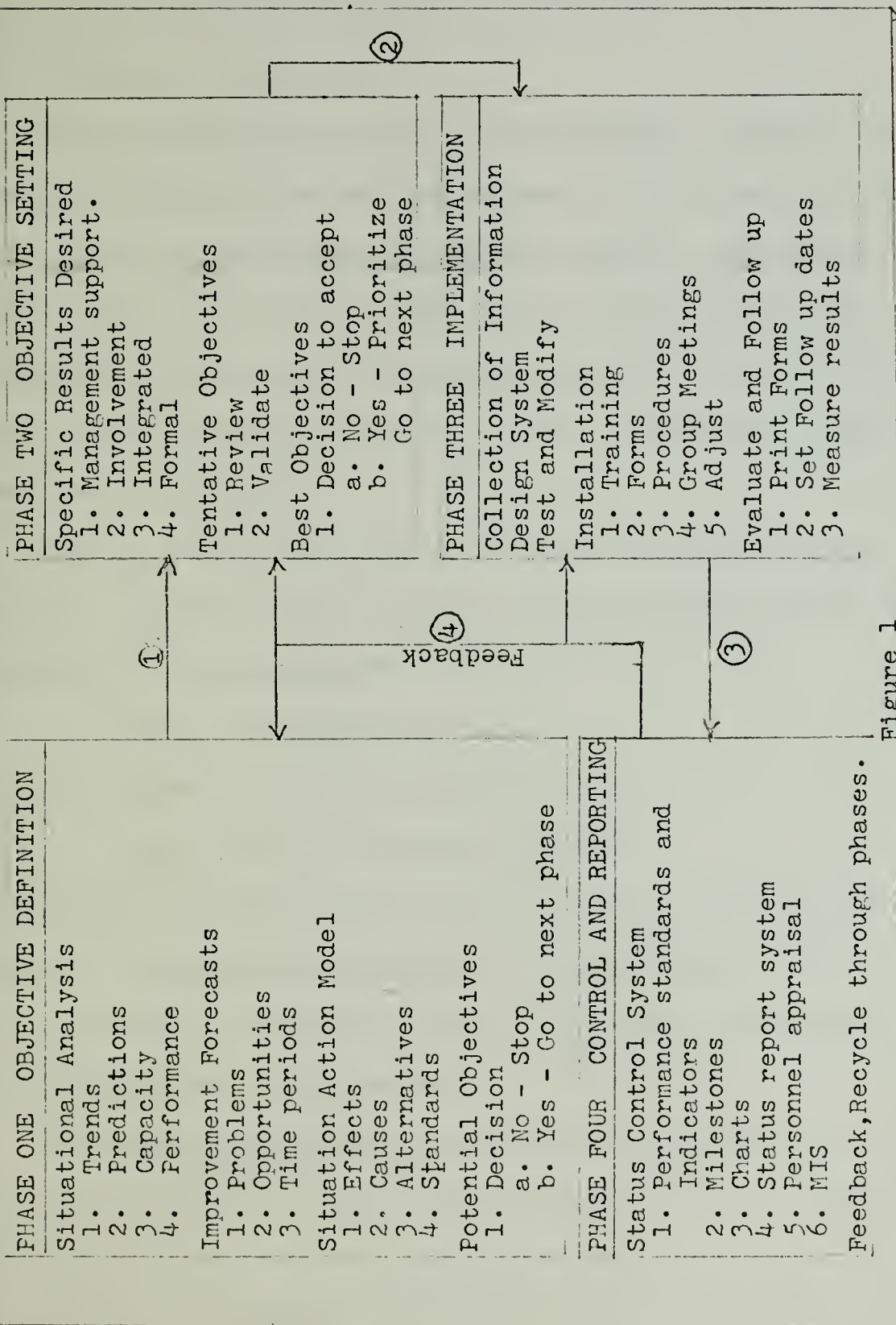


Figure 1

VI. OBJECTIVE DEVELOPMENT PHASE ONE

A. LOOKING TO THE FUTURE

The manager who has decided to use management by objectives may very likely find himself somewhat overwhelmed by the task that lies ahead. By this time in his MBO orientation, whether as part of an organization wide orientation program or as a result of his own efforts, he has been made aware that MBO has been successfully employed by others and he is ready to take advantage of its reported benefits. This brings him to Phase One of the MBO process.

Probably the key to the success of Phase One (and thus, the MBO program) is the achievement of the difficult task of stepping back from the organization and analyzing it from the aspect of:

1. Where is the organization today?
2. Where is it headed, if nothing is altered?
3. Where should the organization be going?

This chapter is concerned with the rationale and the procedure for making a future-oriented, situational analysis of one's organization, which can lead to the definition of potential objectives upon which to base actions to be accomplished in subsequent phases.

Mali suggests that developing of potentially useful objectives can be accomplished through an improvement-oriented forecasting technique.³⁴

³⁴ Mali, P., Managing By Objectives, p. 70, Pitman, 1970.

The crux of this idea is that an organization should look toward areas in which to improve because even though the future of an organization is uncertain, the organization should take action to improve upon its past situation. In such an organization looking to the future, the individual manager should be urged coincidentally to originate changes which will improve his own situation. As a result, a situational analysis of an organization should be concerned with the integration of the organizational and the individual manager's expectations for the future, and not remain enamored with the past and its current status.

In conducting this type of situational analysis, a number of general areas of organizational capacity should be considered when looking for improvement. That is to say, that before one can improve, the capacity to improve must be present or at least, called for in the planning. These areas include:

1. Management effectiveness and capabilities at various levels in the organization.
2. Management Information systems (MIS).
3. Technological know how and research and development skills.
4. Manpower skills, experience and numbers available. The status of motivation of personnel toward organizational goals and its output as related to the capacity.
5. Output capabilities.
6. Budgetary considerations.
7. Current and potential users of the output or services provided by the organization.

The general areas listed above are not intended to be all-inclusive, but are offered as a group of items that should be considered at this point.

A method of conducting a situational analysis that facilitates forward thinking is through the use of time periods for making future improvement considerations. This can be accomplished using three convenient periods of time for reference, long range, short range and immediate. Each of these is discussed below:

1. Long Range. When one looks at long range areas for improvement, he is usually concerned with the continued life of the organization, or working under an assumption that the organization has a long range future. Questions concerning the organization's future should be asked at this point, such as: Should the organization be changed from its present form and are there trends which can provide the information needed to predict the long range effects of technology and other areas of capacity discussed above. The organization should be concerned with overall trends which affect its direction. A manager within this organization probably is more concerned with the state of the art of his particular function and its direction. A five year outlook for improvement is often employed by many organizations. In the Department of Defense, this is a convenient time period to use, inasmuch as it can be aligned with the Five Year Defense Plan (FYDP).

A word of caution regarding the time frame is considered appropriate at this point, since strict adherence to a five year period as opposed to three or four years, could create problems. This is because information

may be available which can provide only a shorter range forecast. A manager should fit the period of time for which the information system can provide data to his long range outlook in order to avoid guesswork or wishful prognostication.

2. Short Range. Short range improvements naturally flow from long range forecasting. A long term goal might be to improve fleet cryptologic support by installing cryptologic operating areas on board all combatants, destroyers and larger. A short range improvement might be to provide for the installation on those combatants which are to be deployed to the Mediterranean in the next year or so. Again, as in the case of long range forecasts, complete information to cover the period in question should be available in order to validate shifting of assets to meet the short range improvement target.

3. Immediate. This category of time is usually employed to describe improvements which are desired in a period of less than a year. Quick fix situations and contingency developments drive this type of decision making. Improvement decisions for this period of time should be very carefully considered as they will probably have a most detrimental effect on longer range goals. This is because they will likely exhaust organizational capacity at a higher rate than those in a longer range improvement category, and thus severely handicap capacity to make improvement of a lasting nature.

There are a number of methods which have been used to conduct this type of situational analysis, such as problem area analysis, maximum

opportunity methods, numerical and statistical methods, management models, and group consensus techniques.³⁵ The use of anyone or combination of these methods will be a matter of individual choice based on ease of use, applicability to his own organization and familiarity with the method.

The following section describes a management model originated by Mali which has many of the benefits of the methods listed above and, as a result, can provide a useable and straightforward model for use by managers at any level to conduct situational analysis. It is appropriately termed the situation action model.³⁶

B. THE SITUATION ACTION MODEL (SAM)

It is not intended to quote Mali's description of the situation action model here. Rather, a step by step discussion of the major points of how it can be used within the context of objective development to be accomplished in Phase One will be provided. Figure 2 is a completed SAM form with entries to serve as examples of results which might stem from the step by step process described below. In addition, a blank SAM form is included as Appendix A for possible use while conducting Phase One. The sequence for use of the form is as follows:

³⁵ Mali, P., Managing by Objectives, p. 79, Pitman, 1970.

³⁶ Ibid, p. 94-107.

1. Collecting Effects from a Situational Analysis

As indicated, a situational analysis is a method of posing questions and collecting data on the organization's present position. It also looks at significant trends and changes which affect the organization and provides a prediction of where the organization is heading. Many methods are employed to do this such as audits, inspections, manpower survey teams, and the like. Basically, this is no more than the process of asking the traditional questions of Who, Where, When, Which, How, and Why. Although specifics may not arise, identification of situational effects (symptoms) should result from this process. The results of the analysis is entered in the column entitled EFFECTS in the SAM form.

2. Determining Causes of the Situational Effects

This step involves the identification of causes which created the effects isolated in Step one and the integrating of the cause-effect relationship. Since causes are the producers of effects, this step is aimed at uncovering causes which are having undesirable effects so that alternatives to eliminate them can be suggested. Of course, causes can also produce desirable effects which, if identified, can be viewed from the standpoint of growth and continued existence of the organization. The results of this endeavor are entered in the column entitled CAUSES in the SAM form.

3. Finding Eliminators of (Alternatives to) Situational Causes

Looking for eliminators or alternatives should be done carefully and systematically. A good decision-maker will want to know how many

alternatives there are and if there are others not as yet identified. During this process one must be careful not to be led into the trap of changing for the sake of change alone. Sometimes the alternatives are less effective than those currently in evidence. There is no magic number of alternatives which need to be identified before the decision-making process is begun. In this regard, searching for the best alternative may become an inefficient process if it delays the decision too long to be of value to the organization. Some time limit should be set if constructive alternative generation is to be accomplished. Decisions should not be delayed waiting for a panacea to appear.

There are a number of methods which have been suggested to accomplish this task. They include techniques like brainstorming, originating of idea checklists to serve as stimuli for new thinking, making a similar type of checklist of questions to stimulate ideas and alternative viewpoints, and value analysis of functional procedures. In selecting a method or methods to use, it should be kept in mind that one method may not be the best vehicle for all managers to use. Whatever the method(s) selected, the process should be kept flexible enough to allow for method changes if warranted. The results of this action are entered in the column entitled IMPROVEMENT ALTERNATIVES on the SAM form.

4. Selecting the Best Alternative(s)

This last step in the situational action process is the payoff step. All the work up to now has been in aid of making the ultimate choice of the best alternative. In this step, alternatives are weighed against one

another to select the best few. To accomplish this, some value of utility must be assigned to each in order to compare them properly. In the SAM model this is done by assigning weights to each alternative based on a standard or category of action that is considered significant by the organization. A sample listing of standards for action is provided on page 56 which might be applied to cryptologic manager decision-making. It is not intended to be a complete and final listing, however, and would probably need to be expanded, modified or revised depending upon the management entity involved. The step by step process for developing the rank order of the alternatives in the decision matrix portion of the SAM form is as follows:

Step 1: Select the standards for action that constitute greatest relative utility for the situation or problem at hand.

Step 2: Using a numerical ranking sequence, weigh each alternative in order of utility for each standard, 1 for the greatest utility, 2 for the next and so on. These are placed in the columns headed by the letters A through K in the SAM form.

Step 3: Continue the process of ranking each of the alternatives by column until all standards that have application are covered. Those standards columns not considered applicable can be left blank.

Step 4: Add horizontally the cell values in the column to arrive at the total score. Enter this in the total score column.

Step 5: Select the rank number in the total score column that best meets all criteria (lowest number).

Step 6: If standards are to be given different values (i.e., if Cost effectiveness is considered more significant than Morale), then the cellular value will have to be multiplied by the difference value before step 4 and 5 are accomplished. If standards are regarded as equal in importance, then ignore this step.

The results of Phase One, no matter the method employed, should be potential objectives upon which the organization can base its formalization of objectives and objective setting efforts. The next chapter describes Phase Two of the four phase approach to MBO, the objective setting process.

SITUATIONAL PROBLEM: Overmanning of CT Rating at the E7-E9 Level due to Severe and rapid billet losses.

E X A M P L E

EFFECTS	CAUSES	IMPROVEMENT ALTERNATIVES	DECISION MATRIX											ALTER. RANKING
			A	B	C	D	E	F	G	H	I	J	K	
Reduced Promotion Opportunity	Inadequate Openings	Request Addit. E7-E9 billets	5		6		1		6	6	3		27	
Reduced Reenlist.	No promotional future (3-5 yr)	Institute 20-yr continuation pgm	1		1		5		1	5	1		14	Second Alt.
Higher % of PCS Funds	E7-E9 being sent to E3-E6 bil	Move personnel less often	2		2		4		2	1	2		13	First Alt.
Lower state of Morale	E7-E9 serving in E3-E6 billets	Request upgrade E2-E6 billets	6		5		2		5	2	4		24	
Higher Pay in MILPERS	Rating overweight at top	Institute non-reenlistment pgm	3		4		6		4	4	5		26	
Loss of Experience	Reduced career reenlistment	Increase training	4		3		3		3	3	6		22	

COMMENTS: Investigate first and second alternative of moving personnel less often and institution of a 20-year continuation program. Since total weight is close, both may be worthwhile to improve situation.

SITUATION ACTION MODEL

E X A M P L E

Figure 2

STANDARDS OF ACTION LISTING FOR POSSIBLE USE

- A. COST EFFECTIVENESS - the degree to which this alternative will be cost effective.
- B. TIMELINESS - the degree to which the alternative will provide better and shorter time consumption.
- C. FEASIBILITY - the degree to which the alternative realistically can be accomplished.
- D. CONSUMER SATISFACTION - the degree to which the consumer will receive increased satisfaction.
- E. MORALE - the degree to which morale will be increased within the organization.
- F. COMMUNITY IMAGE - the degree to which the external image of the organization will be enhanced.
- G. PPBS ACTION - the degree to which programming and budgeting actions can be expected in support of alternative.
- H. QUALITY - the degree to which the quality of the product produced will be improved.
- I. TRAINING - the degree to which training will be required to support alternative.
- J. SERVICE or SUPPORT - the degree to which services or support provided by the organization will be improved.
- K. TECHNOLOGY - the degree to which state of the art technology will affect the alternative.

VII. OBJECTIVE (GOAL) SETTING PHASE TWO

A. THE OBJECTIVE SETTING PROCESS

Once the initial phase of the management by objectives process has been concluded, the potential areas for improvement which have been identified will need to be refined and transformed into objectives. It is during the objective setting phase, Phase Two, that this transformation is accomplished. During this second phase, objectives are formulated, validated and then formalized in a list of firm objectives to which the organization and its individual managers will be committed until objectives are changed or achieved. Because the objectives resulting from phase two serve as a binding commitment for the entire organization, future actions taken will be a direct consequence. As a result, successful execution of phase two will be a major determining factor to future success or failure. Therefore, it is mandatory that adequate time and particular care and attention be given to the objective setting process, so that realistic, meaningful and sound objectives are established.

Before going into the objective setting process in detail, the objective setting phase should be put into perspective from the standpoint of organizational structure. How, one might ask, can objectives be formulated when an organization is made up of so many different entities and seemingly unrelated units? This can be answered if one views the objective setting process as a reflection of the hierarchy or chain of authority which prevails within an organization. This chain of authority extends from the

top of an organization, no matter the size, down through the various levels of responsibility in existence within that organization. To be meaningful and purposeful, objectives should be specific at all these levels. Objectives should also follow the organization's structure so that the scope of the objective is broadest at the top and becomes narrower at each of the lower levels. Additionally, each objective at lower levels should be tied to an objective at the next higher level to produce a continuum of purpose. The result of this structuring of objectives to match the organization should be a closely related chain of objectives which reflect accurately the degree of responsibility at each level for achieving the objective. This chain of objectives can also facilitate an awareness by the subordinate of what his superior expects of him and at the same time, informs the subordinate of his bosses' objectives. As a bonus, this clarification of the organizational objective structure makes the task of formulating objectives at all levels a considerably less complicated and a more straightforward function. Figure 3 depicts how this hierarchy of objectives might be applied to HQNAVSECGRU.

There are a number of ways that the objective setting phase can be undertaken. One approach is to view the phase as related functions, including a formulation function, a validation function and the function of actual formalizing a list of hard objectives which result from the formulation and validation functions. The subsequent sections of this chapter deal with each of these functions.

B. FORMULATING OBJECTIVES

When carrying out the formulation function in the objective setting process, one needs to take into account the specific output or result which will arise through the achievement of that objective. Only then can one undertake the task of actually formulating an objective that will prove to be realistic. In other words, writing objectives is the writing of statements committed to achieving results. This may appear to be common sense, but practitioners in the field (Odiorne, 1965; Levinson, 1970; Mali, 1972) reflect that this is a common omission in existing objective statements of many organizations.

Without the underlying results-oriented base, ambiguous statements which reflect motherhood-type goals are produced. It is understandable that this may occur, since wide-sweeping statements of objectives, such as "Improve Organizational Morale" and "Provide Better Service and Support" receive general approval because they satisfy everyone concerned and leave a comfortable cushion for rationalization and loose interpretation in the long run. Objectives such as these can be pointed to with a smile and receive knowing nods from managers throughout the organization. The problem here should be obvious. The heart of the matter has been avoided completely and the objective setting process destined to produce mediocre and ineffective objectives.

What is required in the formulation stage is that the statement be produced with thought and through analysis. In this regard, there are a number of factors that managers should consider when formulating

objectives , including:

1. Objectives should be stated in terms of results or criteria for achievement, as opposed to activities which are to be carried out.
2. Objectives should be clear, concise and realistic.
3. Objectives should be time limited to provide milestones for achievement.
4. Objectives should be ambitious enough to offer a challenge to the individual responsible for their achievement and provide for a certain amount of performance stretching.
5. Objectives should take into account those internal and external constraints which are not subject to control by the responsible individual.
6. Objectives should be related directly to and support higher level objectives.
7. Objectives should be assigned a priority which identifies its relative importance and value to the organization.
8. Objectives should be designed to cover a single end result and not a set of multiple commitments.
9. Objectives should be written in as quantifiable terms as possible to facilitate measurement and reportability.

10. Objectives should establish a commitment between superior and subordinate which is fully understandable and acceptable to both.

How can one go about formulating objectives? Does the boss set the objective for the rest of the unit? Is it possible for the subordinate to get involved? One of the major benefits reported by users of MBO has

been that the subordinate becomes more involved and committed to the job at hand if he participates in the actual objective setting process. At the same time, it must be recognized that there are organizational and personnel constraints which militate against complete subordinate or bottom-up objective origination. It is believed that the most pragmatic and realistic approach to this task is to use the method that best fits the situation and/or the individual involved. It has been suggested that this can be accomplished in four different ways:³⁷

1. Drafted by the Superior

This method seems to be the obvious solution in many bureaucratic organizations. In this way, the objective is formulated without any question of subordinate involvement and reflects the objectives of the superior as he views the situation. A leader with a very autocratic style of leadership would be very comfortable with this method. Also, the subordinate who was lacking either in inclination or ability to formulate his own objectives might find this method desirable. However, it should be kept in mind that this method does not contain the elements of involvement, commitment and participation that MBO implies, since it does not draw a subordinate's ideas to the surface and does not get him involved personally. Before opting for this method, others should be explored for possible application.

³⁷ Reddin, W. J., Managerial Effectiveness, p. 279, McGraw-Hill, 1970.

2. Drafted by Superior and Discussed with Subordinate

This method involves drafting of the objectives by the superior which are tentative in nature and subject to change and discussion. In subsequent discussions with the subordinate, they can be modified and redrafted to satisfy both parties. This might serve as a desirable method when the subordinate does not have a feel for what objectives he should be looking to or is inexperienced in MBO. This method still falls short of the MBO philosophy which calls for setting the scene for motivation of the subordinate by urging him to participate in originating his own goals. The situation must be carefully weighed by the superior before using this method.

3. Staff Facilitated Objective Formulation by Either Superior or Subordinate

In this method, a third party, usually a staff MBO consultant, is used to facilitate the formulation of objectives which are agreeable to both superior and subordinate. The objectives can be drafted with the assistance of the third party by either the superior or the subordinate, depending on the situation. This is a popular form of drafting objectives since it uses the expertise of the third party to insure that proper methodology is employed in the formulation stage. Reddin warns that there are at least three disadvantages that he sees to this method.³⁸ First, it is costly to use extra individuals; second, the objectives tend to reflect the

³⁸Ibid, p. 280.

situation as the third party sees it; and third, the subordinate knows that the superior has brought the third party in, thus the meeting may become a two against one situation. Since one of the MBO benefits reportedly achieved by users is the improvement of superior-subordinate relationships through face to face encounter and mutual objective drafting this method can detract from such a benefit. However, one should not be reluctant to use this method if the situation demands, such as when both the subordinate and superior are unfamiliar with MBO and good objective drafting techniques.

4. Drafted by Subordinate and Approved by Superior

As indicated earlier in the chapter, this method is the commonly suggested manner of drafting objectives. It involves the subordinate directly drafting his own set of objectives and then meeting with the superior to establish an acceptable version. This method is considered the most desirable since it permits the subordinate to present his ideas and gets him committed through his personal involvement in the objective setting process. A word of caution should be put forth at this point. In an organization where MBO is new or where the situation does not allow such a degree of participation by the subordinate, this method could be less effective than some of the others listed above. One of the major criterion for making MBO work in an organization is to allow plenty of time to stimulate a working atmosphere which motivates the use of this method as a natural outcome of day to day association with the principles of MBO. Chapter VIII contains further discussions on the implementation of MBO in an organization.

One area that is often overlooked when formulating objectives is the question of just how many objectives an organization or individual should set. To answer this question, several variables within the organization must be reviewed, including the scope of the objective, the time required and allowed to reach objectives, the nature of the job and the importance of achieving the objectives to the organization and individuals concerned. The resultant number of objectives will likely be driven by the degree of importance each of the foregoing variables has on the decision maker. The literature is unanimous in its recommendation that the numbers of objectives be limited and kept as small as possible. In this regard, a common error of the beginning MBO practitioner is to adopt too many objectives and spread himself too thin as a result.

The best rule of thumb is probably to keep the number as small as possible, while at the same time insuring that they include the most significant goals in terms of results for the organization and the individual concerned. In this regard, the Situation Action Model can assist in limiting the number of potential objectives to those considered most important. Additionally, another method for determining the most important objectives is to use the Key Results Analysis approach originated by Humble.³⁹ This involves looking at Key Result Areas to project the most significant aspects of the job or situation. Basically, Key Results Areas are those twenty

³⁹Humble, J. W., Management by Objectives, Industrial Education and Research Foundation, 1967.

percent of the tasks that take up eighty percent of a manager's time. That is to say that about twenty percent of the activities on a list of managers duties are critical to his job performance. By reviewing each situation with the foregoing in mind, the task of establishing a comfortable and achievable number of objectives can be simplified.

Prior to discussing the validation function of objective setting, a few comments are included at this time regarding the quantification of objectives. This is done here, since it seems impractical to talk of validation without first insuring that the objective can be measured to some degree. Without this capacity to be measured, the whole process of attempting to validate whether or not an objective has a good probability of being achieved becomes academic. This does not mean to imply that every objective should be quantified in minute mathematical terms. Obviously, many objectives cannot reach this degree of quantification because of the organization's output and end product. This problem is a tough one in the federal government. Newburn indicated this when he stated: "it is a difficult matter to construct realistic, meaningful indexes or measurements for those organizations or parts thereof that are primarily involved in research and development, and services of a highly sophisticated and esoteric nature."⁴⁰ This statement was based on a U. S. Bureau of the Budget study released in 1964.⁴¹

⁴⁰Newburn, R. M., "Measuring Productivity in Organizations with Unquantifiable End-products," Personnel Journal, p. 656, September 1972.

⁴¹U. S. Bureau of the Budget, Washington, D.C., Measuring Productivity of Federal Government Organizations, p. 4, 1964.

This difficulty should not detract organizations that produce outputs which are seemingly non-quantifiable from attempting to set meaningful objectives. Managers within HQNAVSECGRU might find themselves in this position from the standpoint of some of the outputs of their organization. Often the case is found where once the organization facing such a problem starts digging deep to identify quantifiable aspects, measures surface almost as a matter of course. In this light, standards for measurement can be put in relative or other less finite terms and still be effective within the context of better objective quantification. What is implied here is that the very effort put forth in formulating quantifiable objectives will result in improved objective identification and understanding, no matter the degree of measurability.

C. VALIDATING THE OBJECTIVE

Although the function of validation is being handled in this chapter separately, the function is usually, and in many cases necessarily, carried out simultaneously with objective formulation. This is because the manager can be reasonably certain that the objective under consideration can be expected to be reached. It cannot be estimated just how much personal anxiety and organization stress results as a consequence of striving for goals which ultimately are found to be ones that could never have been met. The validation process encompasses the job of firming up the expected end results by tracing the manner in which resources and work activities have been organized to accomplish the desired objective. This can be accomplished by a number of methods, including such things as venture analysis

using decision-tree methodology, work breakdown structures and PERT.

A commonly used method in governmental circles is the latter of these, the PERT method. To furnish the cryptologic manager with a possible tool to use when involved in the validation function, a brief description of PERT is included at this juncture.

PERT is an abbreviation for Program Evaluation and Review Technique which was developed for the Polaris project in 1958 by the Navy and Lockheed in cooperation with Booz, Allen and Hamilton, a management consulting firm. It is a method designed to minimize trouble spots by determining critical activities before they occur so that various parts of the overall job to be accomplished can be coordinated properly. It is a planning and control technique that employs a network chart in order to accomplish a project on schedule. It is a modification of the Gantt milestone chart, a forerunner of PERT, and is based on the idea of milestone reaching at various points in the entire objective reaching process. It is a display mechanism which can readily show tasks and activities which are critical to the overall project and can identify the feasibility of accomplishing an objective in the time desired. In depth explanation of PERT and how it is carried out can be found in R. J. Thierauf's Decision Making through Operations Research.⁴²

⁴²Thierauf, R. J., and R. A. Grosse, Decision Making Through Operations Research, p. 115-143, Wiley, 1970.

D. FORMALIZING THE OBJECTIVES LIST

Once the participants in the objective setting process are satisfied that the objectives formulated are valid and contain the proper attributes alluded to in the earlier sections of this chapter, the objective can then be firmed up and set as an objective. In some organizations this is done by including the objective with all other objectives for the organization in one document. This document is subdivided using the objectives of the organizations that are broadest in scope, along with subordinate level objectives keyed to these broad objectives. Most organizations find it mandatory to maintain lists of objectives at each level so that there is no question as to the objectives that were set for that particular unit and individuals within that unit.

It is considered important at this time to caution the potential MBO practitioner that the hard work accomplished to this point can become wasted effort. A firm listing of objectives has been developed which are designed to improve the organization and bring into focus the future direction of the organization. Therefore, the list should be used on a continuous basis and actions implemented which are keyed to these objectives. Regrettably, it is at this point in the MBO process that many organizations fail to follow through with the goals they have set and the neat document containing the objectives becomes a dust collector which only appears during inspections and briefings to outside visitors. Each manager in the organization should insure that this does not happen in his area of authority.

E. A GUIDE TO SETTING OBJECTIVES

The foregoing sections contain the rationale and justification for insuring that the objective setting process is done with care and that this process produces realistic and meaningful objectives which reflect the desires of the organization and its individuals. To provide the aspirant MBO user with a tool which may assist in making this objective setting process as straightforward and less complicated a procedure as possible, the following guide has been included:

1. Guide for Objective Setting

a. Draft an objective that is related to your job and to the objectives you know to be or think are those of your organization. If broader objectives are in existence, key your objectives to them. The following is a format, with examples, that can be used for initial drafting:

TO DO (action) IN ORDER TO ACCOMPLISH
 (results) BY (date) AT A COST OF (amount) .

Example: To improve delivery time of flash precedence messages in order to meet the requirement of Fleet units for delivery within ten minutes of the time that the message is introduced into the system. This is to be done by June 1975 with no additional expenditure of funds.

Example: To improve message reliability in order to reduce current high rate of requests for repeated messages by twenty percent no later than January 1975.

b. After tentative agreement with your superior, submit the draft objective to a validation process to insure it is feasible.

c. Once satisfied that the objective is feasible, revise the draft as appropriate and firm up the final objective.

d. Once approved by your superior, insure that the objective is made available to all concerned and that they are aware of their individual role and responsibility for its achievement.

e. Set the objective as part of a formalized listing in priority order.

CONCEPTUAL HQNAVSECGRU OBJECTIVE HIERARCHY

TOP LEVEL OBJECTIVES

- A. Broadest in scope.
- B. Specific, Results oriented.
- C. Time constrained.
- C. Prioritized

DEPARTMENT LEVEL OBJECTIVES

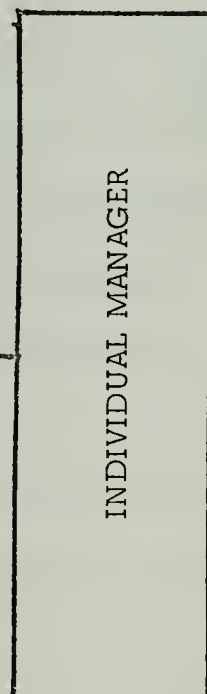
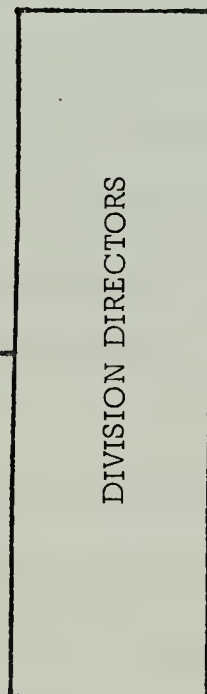
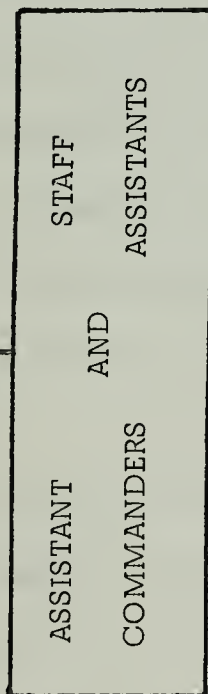
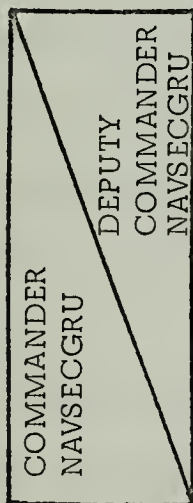
- A. Keyed to top level objectives as appropriate.
- B. Less broad in scope.
- C. Specific, results oriented.
- D. Time constrained and prioritized.

DIVISION LEVEL OBJECTIVES

- A. Keyed to department level objectives as appropriate.
- B. More narrow in scope.
- C. Specific, results oriented.
- D. Time constrained and prioritized.

INDIVIDUAL LEVEL OBJECTIVES

- A. Keyed to higher level objectives, as appropriate.
- B. Personal goals considered.
- C. Narrowest in scope.
- D. Specific, results oriented, time constrained and prioritized.



VIII. IMPLEMENTATION OF ACTION PHASE THREE

A. GETTING STARTED WITH MANAGEMENT BY OBJECTIVES

The manager who decides that MBO is for him and his organization will find that getting MBO started in his organization and implementing the actions necessary to follow through on the objectives which have been set in the previous phase is not a simple task. It is one thing to get people to build objectives for themselves and the organization but another to see that those objectives are achieved. There is probably no one magic formula for solving this problem, because each manager and each organizational situation have widely differing needs, requirements, goals, personnel and constraints. Thus, what may be a good solution for one may be a terrible solution for the next. The implication here is that any individual manager who is faced with the implementation of action phase of MBO must realize that using only one method may not be the answer to success. A manager may be forced into using a multiplicity of leadership styles and motivational techniques to get the job done, simply because the personal attributes and needs of his subordinates are varied.

In most cases, MBO will come as a new way of doing things for many subordinates and one must be ready to cope with problems such as resistance to change which can arise, and be prepared to be flexible. For example, a tightly controlled form of management with little subordinate

participation should not expect the subordinate to automatically start participating in objective setting and accomplishment just because MBO has been introduced. Likert has observed that:⁴³

Experience has shown, as have experiments (White and Lippitt, 1960) that when management relinquishes tight controls and moves toward participative management, the initial responses of members at every level may be apathy or open hostility and aggressive responses against their superiors.

As I see it, the implementation of action phase of MBO must be viewed from two aspects. The first is to be fully aware of problems with motivating the individual in your organization to use and become involved in MBO. The second is to design a framework for systematic MBO implementation. In the succeeding sections, these two aspects will be covered separately. However, it should be kept in mind that the overall implementation of action phase will necessarily be an integration of both.

B. MOTIVATIONAL AND SITUATIONAL THEORY AND MBO

There are a number of theories and outlooks which attempt to explain organizational problems. A popular view is to look only at the individual and explain away any organizational difficulties as a product of personality or psychological traits. The underlying suggestion is that if one finds out the problems of the individual and sets the atmosphere to overcome that problem, then the organizational problems will go away. Another viewpoint is put forth in sociological terms, in this case the organization's

⁴³Likert, R., New Patterns of Management, p. 245, McGraw-Hill, 1961.

structure is used to explain problems. The idea being that if structure is properly modified, then the organizational problems will be alleviated.

Yet a third and in my opinion, the most enlightened and pragmatic approach, is to look at the problem from the aspect of both the individual and the organization. In this manner the manager can study the situation and with an open mind, come to grips with the problem attached to the specific situation. A brief synopsis of various schools of thought on people in organizations has been included in Appendix B to provide the potential MBO implementer with a base for further investigation and for choosing the proper method to motivate his subordinates to use MBO.

Before turning to the framework for implementation of MBO, it is considered important to discuss one particular aspect of attitudinal motivation. This is the overcoming of resistance to change. As indicated previously, people often feel comfortable in their current situation. They know what activities they do each day and have a routine established that is familiar and secure. The idea of MBO which attempts to clarify and make more visible just what is being done, and to channel this activity in the direction of organization objectives, may initially seem as a threat to an individual's comfortable status. No matter what approach one chooses when dealing with subordinates, overcoming resistance to change will be one of the keys to any success in the future.

C. IMPLEMENTING MANAGEMENT BY OBJECTIVES

The previous two chapters were dedicated to the initial phases of the MBO process and were written somewhat with the assumption that MBO

had been decided upon by the manager and his organization as the way to conduct future operations. This section discusses a framework which can be used to implement MBO and as such, encompasses those actions outlined in the objective development and objective setting phases. Since the entire MBO process is viewed as a constant recycling and reiteration process, this overlapping is not considered to be out of place.

In the foregoing section, the problems of implementation from the standpoint of people have been discussed. The following is a suggested systematic approach which if done properly can minimize many of these problems which may develop.

As previously suggested, this thesis has been written to serve as a base for possible HQNAVSECGRU and/or separate departmental application of an MBO process. As a result, two frameworks, similar in nature, are presented.⁴⁴ A chart depicting each is contained in Figures 4 and 5 respectively. The following discussion is keyed to the various steps contained in the charts.

1. STEP 1. Collection of Information

This step involves, inter alia, the thorough analysis and review of the organizational situation discussed in Chapter VI. In those cases where MBO is started in a department within the organization, that department's program should be viewed as a possible pilot for application

⁴⁴The bulk of the content of each of these frameworks is contained in two charts prepared by Management Advisory Associates, Inc., Brecksville, Ohio. They have been modified to lend them to use by members of HQNAVSECGRU.



throughout the organization. Various aspects of the organization must be studied, including interdepartmental conditions and personnel attitudes. In this regard, a method of attitude determination is to conduct a climate survey designed to show how ready individuals in the organization are to accept MBO. A survey which can be used for this process has been developed by Varney and is contained in Appendix C with modifications applicable to a military organization.⁴⁵

The results of this survey should act as the focal point for proceeding with other elements of Step 1. These include investigating other MBO systems, conducting seminars in MBO, getting literature on MBO into the library, obtaining films on MBO for indoctrination of personnel, and deciding whether to use outside or inside MBO implementers. In this regard, within HQNAVSECGRU it may be best to use cryptologic managers with MBO experience and training because of the problem with security which may be encountered in bringing in outside experts. At the end of Step 1, the approach for implementing the system of MBO should have been tentatively formulated.

2. STEP 2. Design System and Establish Criteria

At this point the idea of how one will conduct objective development and objective setting should have been identified. A performance cycle should be determined during Step 2 which is compatible with

⁴⁵Varney, G. H., Management by Objectives, p. 9-10B, Dartnell Corp, 1971.



organizational planning and control. Within HQNAVSECGRU, it is suggested that this cycle coincide with the Department of Defense PPBS cycle, rather than by calendar year, in order to align responsive objectives with the requirements written in the PPBS time frame. Task definition is also required during this step. This usually necessitates a review of all job descriptions and rewriting them to align with the objectives that will serve as criteria for performance evaluation and measurement. Inter-departmental relationships will need to be clarified and clear lines of responsibility and authority spelled out. Once the system is designed, testing of the system is necessary. Step 3 is concerned with this function.

3. STEP 3. Test and Debug Installation System at a Level of the Organization

At HQNAVSECGRU, the system might be best tested by an individual department. The outcome of this test would then be evaluated and reviewed and any necessary changes accomplished prior to going on to Step 4. At the department level, testing can be accomplished by introducing MBO by an individual division manager and his subordinate group.

4. STEP 4. Install and Test on a Wider Scale in the Organization

Once satisfied that the system can work within the organization, no matter the size of the organization, the system should then be installed and tested on a wider scale. For HQNAVSECGRU it is recommended that this be done using two departments which have interrelated functions. The same iteration is accomplished at this point as was done in Step 3. In the department level, this step involves installation in the entire department.

5. STEP 5. Install and Test Throughout Organization

In this step, the program is implemented throughout the organization. HQNAVSECGRU would probably want to have a central implementer to coordinate the various departments and establish a centralized control mechanism for testing and evaluation. At the department level, this step is an evaluation and follow up of the department MBO program. Once the system has been tested for problem areas and found to be workable, then the system is ready for official use throughout the organization.

The foregoing discussion has been kept to a minimum in an effort to avoid getting bogged down with details. This does not mean to imply that the installation process is easy or that it does not consume time. As indicated at the bottom of the charts in Figures 4 and 5, previous organizations have taken upwards of three years to get a viable MBO program into effect. Unless one is willing to accept this kind of time constraint, which can be shortened depending on the organization, any attempt to implement an MBO program may well be an exercise in futility. As previously indicated in Chapter IV, one of the common pitfalls encountered by past users of MBO has been the failure to allot sufficient time for its implementation. It stands to reason that an incomplete system may create more problems than if it were never instituted. One of the best ways to insure the installation of a complete system is to develop sound control and reporting methods that provide the necessary base for system direction, modification and redirection. Chapter IX discusses MBO control and reporting aspects as the final phase of the MBO process.

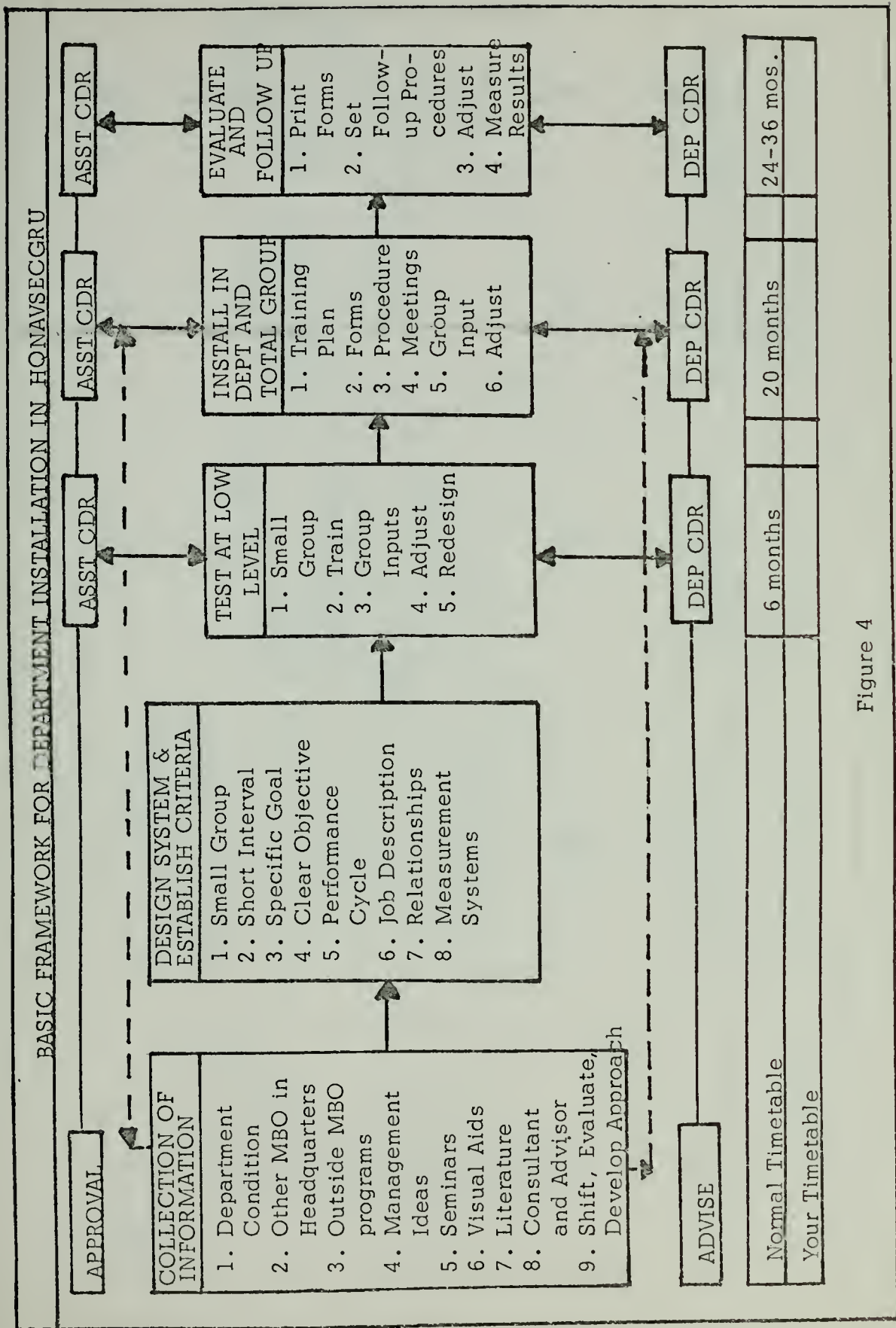


Figure 4

Basic Framework for HQNAVSECGRU-wide Installation of MBO

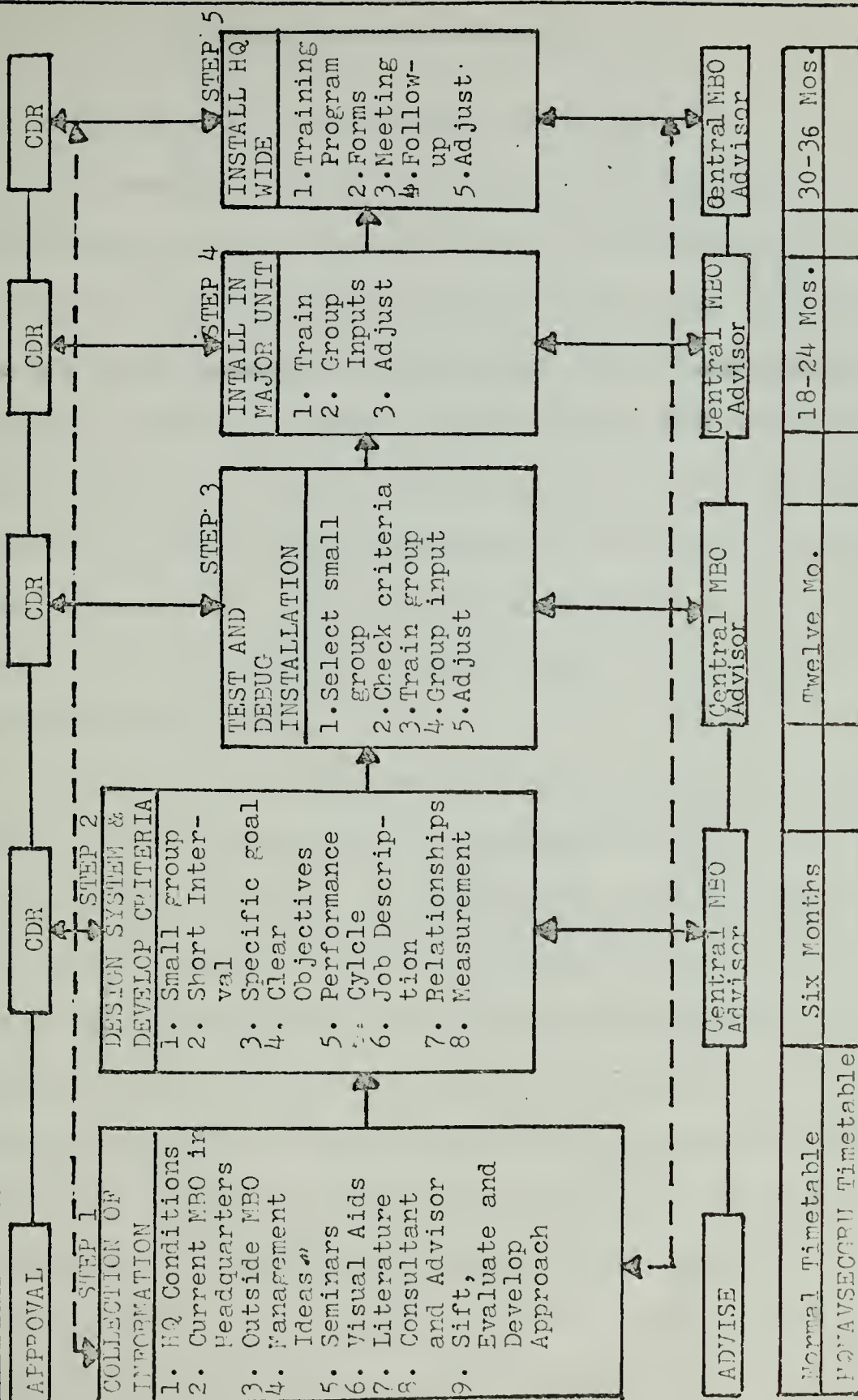


Figure 5

IX. CONTROL AND REPORTING PHASE FOUR

A. CONTROL THROUGH MANAGEMENT BY OBJECTIVES

The managerial function of control can be described as the ability of management to steer an organization along a preplanned course toward set objectives and keep the actions taken to achieve those objectives in line with previously established performance standards or milestones for progress. The key to successful accomplishment of control is to have an effective system built into the overall managerial process which will adequately provide for control and reporting of the progress made toward objective achievement. Under management by objectives, control is a natural outcome of the process because elements of control are contained in each of the four phases.

In phase one, the actions taken to review and analyze the organization in order to develop areas for improvement was an initial step toward gaining control of resources. In phase two, the setting of objectives to serve as the standards against which overall performance can be measured and the various techniques used to validate the objective have produced control points and measurement benchmarks for evaluation of progress. Phase three concerns the implementing actions to accomplish these objectives and provides for positive control through prescribed work tasks and schedules. The final phase of the MBO process involves the linking of the elements of control produced in the other phases, through the establishment of a control and reporting system which will provide the manager

with the capacity to monitor performance of the organization and its individuals to determine if the action being taken will result in achievement of planned objectives. It is considered that only when this final step in the MBO process has been successfully executed that the proper amount of control is placed in the hands of the manager who has the responsibility to get the job accomplished. The following sections describe aspects of control and reporting which are considered necessary to provide a mechanism for control which can facilitate reaching of set objectives, and provide a general framework for a control and reporting system which might prove useful to the prospective MBO practitioner.

B. ASPECTS OF CONTROL AND REPORTING

There are five aspects of control and reporting which I consider particularly significant in developing an effective system which is responsive to the MBO manager's requirements. These include: (1) the system used for management control should provide for timely and accurate reporting, (2) information concerning each objective of an organization should be included in the system, (3) the system should stimulate action, (4) information on significant deviations from performance norms established as part of the management by objectives process should be provided, and (5) the system should be understandable and usable by the manager responsible for objective achievement. These aspects are discussed below in greater detail:

1. Management Control Systems Should Provide Timely and Accurate Reporting

One of the basic elements of effective management control is that timely and accurate feedback and estimates of future developments be provided to keep the manager aware of current and expected progress. Most organizations have a method of reporting what has happened over a period of time, however, many of these do not offer current evaluations of what progress has been made and what can be expected to be made toward planned objectives. As a result, the information is seldom timely enough to enable management to take constructive action to alter the course currently being taken or correct a problem which has developed before it gets out of hand. The manager should ensure that his system provides information that is timely enough to spot problem areas before they are beyond his authority or scope of control. This can be done by insisting that the reporting system be in line with the MBO process and milestones set for progress which were developed during the objective setting phase. For example, if an objective is to be accomplished over the period of a year and there are four or five critical tasks which must be completed to maintain the schedule, accurate information should be readily available concerning these critical tasks. If a task has to be completed by the end of the first quarter of a year so that the next critical task can begin, current information on the progress being made in the first task is required. It does the manager no good to find out two weeks before the end of a quarter that the task will not be completed for another three months due to personnel constraints. As Mali stated: "The importance of timing cannot be overstressed. After

the fact information only helps future actions; it cannot control present activities."⁴⁶ This emphasis on timing does not mean to suggest that expensive day to day feedback is the solution, but only that the system must be responsive to those time constraints and milestones for progress that are involved in achieving the objective at hand. This can be the key to providing the needed information in time for critical decision making which can assure successful completion of the objective.

2. Information on Each Objective in an Organization Should be Included

In Chapter VII, the principle of establishing a hierarchy of objectives in line with the structure of the organization was discussed. Basically, this involved linking each objective set at various levels of an organization to those at the next higher level. This type of structure demands that a reporting system be established that can provide information for each level of management and that information concerning each objective is included. One of the complaints about information systems is that they are either too broad or too narrow in their reporting. This is often due to the inability of the management information system (MIS) to be flexible enough to provide information on objectives of varying scope. What is needed in a supporting information system is that the level of management that has objectives of the broadest base get reports designed to match this scope of authority. Likewise, the manager at a lower level in the

⁴⁶ Mali, P., Managing by Objectives, p. 215, Wiley, 1972.

organization with objectives which allow less discretion of action should be provided information in a form which can support his control requirements. An information system should have the capability to identify who is accountable for the achievement of each objective. This not only enables the manager to know at all times the individual or unit responsible, but provides accurate and unbiased information for the personnel appraisal function. The information system should provide for scheduled reporting at each level to avoid continual requests for special reports. This should be presented in a variety of report forms tailored to the level of objective achievement. The system must not be allowed to produce one huge report, which although contains all of the information required, necessitates each level of the organization to filter through reams of paper to extract needed data. All of the difficult and time consuming work to build the objective can be fruitless if the supporting system does not provide information in a form applicable to and concerning all levels of objectives.

3. The System Should Stimulate Action

An important factor in the management by objectives process is the capacity of the system to enable the manager to stay on top of the situation through its scheduled and systematic progression toward objective achievement. The supporting information system should produce reports that stimulate corrective action when that action is needed. Information should be provided in a form which alerts the manager to the fact that if action is not taken, the objective is in danger of not being reached. The reporting system which supports aircraft flight operations is an example of this type of system. There are certain critical points along the route taken

by the aircraft which need to be reached in order for the flight to arrive safely and on time. The reporting system provides the pilot with the information necessary for him to take corrective action when it is required and stimulates him to review the situation regarding current status.

Managers in organizations using MBO should expect similar responsive reporting in their system which stimulate action. When a manager reviews his requirements for informational support, he should be satisfied that the system can fulfill the requirement to stimulate action.

4. Significant Deviations from Planned Courses Should be Reported

In order for a manager to control he must have a supporting system which quickly isolates those actions which are not in line with the planned path to objective achievement. Most managers will not want or need to look at every variance that occurs along the way toward the objective because the majority may have little effect on the final outcome. In a budget cycle, for instance, the fact that the actual amount of money spent is off the exact targeted amount by a few thousand dollars at any given point may have little significance in the ultimate expenditure of an annual budget of millions of dollars. Another reason that significant deviations from the norm should be reported is that the manager just does not have time to be concerned with reviewing minor variances each time they develop. The system, in other words, must be responsive to the manager's efficient allocation of his time by being able to spotlight those deviations which actually require his personal attention. This can be accomplished by building into the reporting system a range of variance

around the milestones for progress or performance standards that have been previously established. Actual performance which remains within this range can be considered to be satisfactory and need not be brought to the manager's attention. Those actions which fall outside this range will be presented to the manager for his appropriate action. There are a number of ways that such a range of variance can be determined. Mathematical techniques such as regression analysis can be employed, which can project acceptable limits within which one may have a reasonable degree of confidence of attaining the objective. Other types of statistical analysis can provide similar ranges through statistical sampling techniques. A method, such as PERT,⁴⁷ can be used to plot out the projected path and take steps to ensure the system reports significant deviations from the critical path developed. Yet another technique, which is often the only one available, is to call upon the manager's skill, background and knowledge to establish benchmarks which if not met will be reported as significant deviations. Independent of which method employed to develop this safe range of variance around the perfect path to the objective, the efficient system must permit the manager to receive information on those deviations from standards set by him which facilitate proper use of time and enables prompt action to be taken.

⁴⁷The analytical technique of PERT was discussed in Chapter VII, page 67 .

5. The System Should be Controllable and Usable by Managers Responsible for Objective Achievement

Many managers can find themselves in an organization where the information system no longer provides the support required because the system was not flexible enough to be changed when change was appropriate. When an organization decides to use management by objectives, the reporting system to support the process must be reviewed and tailored to the MBO process. This means that the manager under MBO should have a role in the decision making concerning the type of information and reports that the system will provide. This is necessary because the system is for his use and is to support his ability to control the course of action. Ackoff points out that one of the problems with information systems is that the manager is often left out of the design of the system and its output. This can result in the manager being unable to understand, evaluate or use the system efficiently and thus fail to keep control of his informational support. Ackoff states that: "No MIS should ever be installed unless the managers for whom it is intended are trained to evaluate and hence control it rather than be controlled by it."⁴⁸ The crux of the foregoing is that the system must be the system of the manager responsible for achieving the objective. To facilitate this kind of managerial control over the system, organizations implementing MBO should include necessary guidance and training during

⁴⁸Ackoff, R. L., "Management Misinformation System," MIS: Management Dimensions, edited by R. J. Coleman and M. J. Riley, p. 325, Holden-Day, Inc., 1973.

the MBO indoctrination process so that managers can understand and use the system to their ultimate advantage.

C. A GENERAL FRAMEWORK FOR CONTROL AND REPORTING

To provide the manager who is contemplating use of MBO with a general guide for a control and reporting system, a discussion of one framework which may prove useful is included at this point. The general framework to be discussed below is approached from three aspects: the capsulizing of reports of progress toward objective achievement through use of charts or other visual display forms; the status reporting system upon which the capsule displays are based; and the individual accounting and appraisal function resulting from the management by objectives process:

1. Capsulized Progress Reporting

As previously indicated in the foregoing section on elements of an efficient control and reporting system, a manager who is going to operate within the MBO process must insure that he is aware of progress being made toward the objective. At the same time, as has been shown, he cannot be expected to review daily the vast amounts of information that is available. One of the better ways to keep aware is to develop display formats, such as charts, which a manager can use to make quick and accurate evaluations of the status of objective progress.⁴⁹ To accomplish

⁴⁹It has become popular to maintain various graphs, charts, target displays and the like on the wall of a "professional" manager's office. These devices appear to serve as badges of his ability to control. A closer look at the paraphenelia may reveal their only real use, that of covering the wall.

this, the display should include information on the most current status of actual progress, highlight areas of concern and identify possible future problem areas. The display should match the level of responsibility of the manager using the information. Above all, the chart should give a clear and simplified presentation which can immediately be understood and provide for timely evaluation of the situation. A chart that could be used at various levels of management which satisfies the general requirements stated here, is included in Appendix D.

2. Status Reporting System

In order for the foregoing capsulized progress display to be originated, a supporting system of status reporting should be in existence to provide necessary details. To be supportive, the reporting system which provides information should be aligned with the hierarchy of objectives previously discussed. Institution of an MBO process in an organization may, as a result, necessitate revamping the system currently being employed. Although this may be a large undertaking, it will need to be done to insure that the system facilitates the overall MBO objective achievement function. In this regard, there are two parts to such a reporting system, the actual day to day record keeping function and the status report system which follows from this function. Without going into detail regarding management information systems, which can be a subject for another thesis on its own, one should note that the data base from which status reporting is to be derived should be presented in a form which facilitates easy and accurate formulation of these status reports. Additionally, accurate and

complete information would be the norm to avoid the work of submitting reports to become a paper work exercise because it has no validity due to incomplete or incorrect information.

The status report based on this information should encompass both written and verbal methods of reporting. In organizations which have a requirement to delegate authority due to wide varieties of operations conducted by that organization, such as HQNAVSECGRU, it is important that all forms of reporting be used to facilitate current understanding at all levels of actions being taken to accomplish objectives. Written forms such as memoranda and reports produced by automatic data processing should be used to provide for the recording on a periodic basis what has actually occurred in the path toward an objective. Additionally, verbal methods should be employed, such as face to face discussions between superior and subordinate and group meetings of those involved with satisfying related or the same objectives. These more informal methods can be used to ensure coordination and complete understanding throughout the organization of the facts and figures contained in the written reports, and to avoid time consuming exchanges of written reports between various levels of responsibility.

Once a system is developed which satisfies the organization's requirements for information, efforts will need to be put forth on a continuous basis to keep it usable. Report formats should not be so firmly entrenched that modification is not possible. The manager should be alert to institute information system changes which are needed to keep his

reporting system continually responsive. Above all, the reporting system must not become the end, but should always be kept as the means to reach successful end results.

3. Individual Accounting and Appraisal

Under management by objectives, one of the basic foundations of the process is to provide for mutual objective setting by individuals and their superiors and then base individual performance appraisal on the achievement of these objectives. This is best accomplished through use of a systematic goal setting, personnel evaluation and development process wherein the individual can actively participate. Koontz points out in an article concerning managerial performance appraisal, that one should keep in mind five requirements for an effective appraisal system; the program should be operational, objective, acceptable to all involved, constructive and measure the right things.⁴⁹ In addition, the system should readily identify performers from those who do not accomplish results. In the federal government, appraisal forms are standardized, both for civilian and military managers. Although attempts have been made to make these forms more objective and less subjective, the current forms do not completely match all the requirements of appraisal by objectives. Thus, should MBO be used within HQNAVSECGRU, one would want to choose an ancillary method of individual appraisal that would provide a periodic review of

⁴⁹Koontz, H., "How Can Appraisal of Managers be Made Effective," S.A.M. Advanced Management Journal, p. 12, April, 1973.

performance and objective achievement throughout the operating cycle and from which the official appraisal form can be completed accurately and fairly. There are a number of forms and systems suggested in the literature on MBO to accomplish this task. One of the most applicable of these to a governmental organization is one that has been originated by Elster, Githens and Musgrave as a result of work accomplished during an MBO implementation project at the Naval Supply and Regional Finance Centers in San Diego, California.⁵⁰ This consists of a six page folder which provides for:

1. The promotion of two-way communication between superior and individual.
2. The identification and integration of individual and organizational objectives.
3. Supporting and promoting individual development.
4. Encouragement of results-oriented management.
5. Establishes a results-oriented assessment of individual performance.

An implementer of MBO would need to use a system similar to this when fulfilling the individual appraisal requirements which results from the use of management by objectives.

⁵⁰Elster, R. S., W. Githens and G. Musgrave, "Personnel Development and Evaluation System," U. S. Naval Postgraduate School, Technical Report, Forthcoming.

The foregoing discussion has described the fourth and final phase of the MBO process in general terms. As previously indicated this does not mean to imply that with the execution of this fourth phase, the job of the manager in an MBO-using organization is complete. MBO is a non-ending process and a continuous recycling of the management phases using objectives as the basis for organization direction is inherent to the success and survival of the system. Chapter X discusses the aspects of survival of the management by objectives process in an organization.

X. SYSTEM SURVIVAL

A. SYSTEM SURVIVAL EXPLORED

System survival is defined as the actions which must be taken to ensure that the management by objectives process, which has taken time and effort to get started in your organization, does not gradually deteriorate from lack of attention. As has been shown in the preceding chapters, management by objectives is a dynamic, exciting and tough minded concept of management. It is applicable to the organization that takes itself seriously and wants to remain apace an everchanging environment. Because of its capacity to be responsive to changes over time through review and resetting of objectives keyed to these changes, the MBO process must be afforded constant attention to remain resilient and alive. This can be accomplished by a combination of actions. These include: the maintenance of an accurate and timely system of information feedback, proper training and retraining programs, continuous review and revitalization, and a continuing reemphasis by top level management of their support and policies regarding the MBO process. The subjects are discussed below.

B. MAINTENANCE OF A RESPONSIVE FEEDBACK SYSTEM

Chapter IX discussed the need and framework for an efficient and up to date feedback reporting system. In my opinion, this need cannot be over emphasized. Lack of an effective feedback system has been one of the key factors for management by objectives to be defeated as a

management system in some organizations. Tosi and Carroll found in studies published in 1968, that in response to questions asked of management personnel concerning problems with MBO, "Never get good feedback" was one of eight significant problem areas defined.⁵¹ Additionally, when managers were asked to suggest improvement methods for the MBO process in their organization, the highest level of response (50%) was the suggestion to "Insure review and feedback." What this implies is that often the full cycle idea of the MBO process does not receive enough attention during indoctrination and training sessions. MBO is a continuous process of objective setting and feedback. Without either of these elements, the system is headed for trouble.

C. TRAINING AND MANAGEMENT BY OBJECTIVES

The need for indoctrination and training programs was pointed out during the discussion concerning the implementation of actions phase in Chapter VIII. Additionally, one of the pitfalls directly associated with a military organization was that of rapid turnover of leadership which creates problems of managerial continuity within the MBO process. This dictates the necessity to maintain a viable and relevant training and re-training program. In a conclusion drawn in a study of MBO published in 1972, Ivancevich pointed out that: "the crucial point is that some form of reinforcement of what was learned and practiced in the training sessions

⁵¹Tosi, H. L., and S. J. Carroll, "Managerial Reaction to Management by Objectives," Academy of Management, p. 419-420, December 1968.

is necessary. Without some degree of reinforcement, the effects of training, if any, are diluted and eliminated completely."⁵² The foregoing comments are similar in their intent. That is for training to be afforded a considerable degree of emphasis in order for the MBO process to remain a useable form of management.

D. REVIEW AND REVITALIZATION OF THE PROCESS

The cyclical nature of the management by objectives process should naturally bring about review of the progress made and problem areas attached to certain objectives of the system. The step further that must be taken is doing something about the problems identified as a result of this review. In their study, Tosi and Carroll found that any disenchantment that managers reported with MBO was in great part due to the failure to effectively use the entire program cycle. One conclusion was that "benefits did not accrue, which might have, had the planning and review cycle been completed."⁵³ The main point here is that MBO is the kind of management process that is capable of revitalization which can result from the built in review capacity of the system. Managers should not let this capacity become subordinated to more glamorous short range successes and immediate

⁵²Ivancevich, J. M., "A Longitudinal Assessment of Management by Objectives," Administrative Science Quarterly, p. 135, March, 1972.

⁵³Tosi, H. L., and S. J. Carroll, Loc cit., p. 425.

goal attainment, which might in the long run spell curtains for the MBO process in their organization.

E. TOP LEVEL MANAGEMENT SUPPORT AND INTEREST

As previously indicated in foregoing chapters, most practitioners and theorists in the MBO field feel that top management involvement and support is a major criterion to successful application of MBO in an organization (Mali, 1972; Varney, 1971; Carvalho, 1972; McConkey, 1972). Lip service and token direction without participation from the top is listed as one of the pitfalls encountered when attempting to implement MBO.⁵⁴ In my opinion, once the system has been implemented, this top level attention and interest must constantly be demonstrated. In this regard, it is recommended that any organization, such as HQNAVSECGRU, that implements MBO should ensure that a system of top level reemphasis of the system be done on a periodic basis. This can be accomplished through annual top level policy statements as to the management system that is to be employed in the organization and routine top level meetings with and statements to subordinates concerning high level support of the MBO process. Without this direction from the top, MBO may well disappear from view.

F. MANAGEMENT BY OBJECTIVES IS A PROCESS

As a final observation concerning management by objectives, I feel it important that the dynamic qualities of the process be reemphasized.

⁵⁴McConkey, D. D., "Implementation - The Guts of MBO," S.A.M. Advanced Management Journal, p. 15, July 1972.

Anyone who has managed a large and scattered organization knows that management processes and systems are only as good as their ability to keep abreast the changing problems and constraints that occur. The very fact that MBO offers a method for all levels of management to set their own objectives within the framework of the organization and key those objectives to the overall aims of top management, should urge a manager to investigate its use. Once in use, the idea that it is a process of management and not just another program or "fix it" kind of project, must be remembered. For the process to be your management system, it must be responsive to your needs and objective reaching aspirations. Keep it up-to-date and it can provide the future oriented type of management that today's environment dictates. Without this forward thinking approach to management, your organization may wither and disappear from the larger scene. Above all, let the system work to your advantage and not become another way of keeping records. MBO has the potential to develop an organization into a viable team of management, with coordination and cooperation a norm in the everyday working situation.

APPENDIX A

SITUATION ACTION MODEL

In Chapter VI, a description of the use of the Situation Action Model was furnished and a step by step methodology to determine the best alternatives for further investigation from which to formulate organizational and individual objectives was included. These steps are listed in this appendix for use with the blank Situation Action Model (SAM) contained on page 101

- STEP 1: Select the standards for action that constitute greatest relative utility for the problem or situation at hand.
- STEP 2: Using a numerical ranking sequence, weigh each alternative in order of utility for each standard, 1 for the greatest utility, 2 for the next and so on. These are placed in the columns headed by the letters A through K in the SAM form.
- STEP 3: Continue the process of ranking each of the alternatives by column until all standards that have application are covered. Those standards considered not applicable can be left blank.
- STEP 4: Add horizontally the cell values in the columns to arrive at the total score. Enter this in the total score column.
- STEP 5: Select the rank number in the total score column that best meets all criteria (lowest number).
- STEP 6: If standards are to be given different values (i.e., if Cost Effectiveness is considered more significant in the situation than Morale), then the cellular value will have to be multiplied by the difference value before Steps 4 and 5 are accomplished. If standards are regarded equal in importance, ignore this step.

APPENDIX B

MOTIVATIONAL AND SITUATIONAL THEORY OF PEOPLE IN ORGANIZATIONS

The manager attempting to implement MBO in an organization is encouraged to consider every aspect of people in an organization before choosing a method to motivate subordinates to use MBO. The following discussion is provided to furnish the potential MBO implementer with a capsule view of various theories and approaches concerning people in organizations and organizational problem-solving.

There are various theories and ideas which attempt to explain just what it is that drives an individual on a day to day basis. Some of these suggest that organization situations have little effect on the individual and that the individual has needs which he will try to satisfy, no matter the work situation. Maslow⁵⁵ theorizes that people are born with needs, and their behavior is dominated by these needs not being satisfied. He further suggests that there are five ordered need categories which should be satisfied in man. This begins at the lowest level with man's physiological needs, then rises through the needs for safety, belongingness and love, esteem and ends at the highest order, self actualization. As one need order is satisfied, another emerges, with some degree of overlapping

⁵⁵ Maslow, A. H., Motivation and Personality, Harper and Row, 1954.

occurring between levels. In most men, Maslow states, the lowest order needs must be satisfied before higher order needs can emerge.

An application of Maslow's theory in an organizational setting was put forth by McGregor.⁵⁶ This overlook sees the needs of the worker and the organization in basic conflict. Thus managers need to judge people from two aspects. According to McGregor, these two aspects are labeled Theory X and Theory Y. A brief outline of the opposing points of these two theories is provided below:

Theory X		Theory Y	
1.	Work is distasteful to most people.	1.	Work is natural as play, with favorable conditions.
2.	Most people are not ambitious, do not want responsibility and prefer to be directed.	2.	Self-control is often the key to achieving organizational goals.
3.	Most people have little capacity for solving organizational problems.	3.	The capacity to solve organizational problems is widely distributed throughout the populace.
4.	Motivation occurs only at the physiological and security need levels.	4.	Motivation occurs at all levels of needs.
5.	Most people must be closely controlled and coerced to achieve organizational objectives.	5.	People can be self-directed and creative at work if properly motivated.

The implication of the foregoing is that there are few Theory Y individuals and they are the candidates for managerial functions.

⁵⁶ McGregor, D. V., The Human Side of Enterprise, McGraw-Hill, 1960.

Another view of the individual in an organization is that proposed by Herzberg.⁵⁷ He believes that man working in an organization has two groups of needs which are independent of one another. One group, he states, are "hygiene factors" that stem from job environment. These include Policies and administration, Supervision, Working conditions, Interpersonal relations and Money, Status and Security. These, if changed, can lead to lower satisfaction but never to increased satisfaction. The other group he terms as "motivators" or those that come from the job itself. These include Achievement, Recognition for accomplishment, Challenging work, Increased responsibility, and Growth and Development. Changes here tend to motivate people to higher performance, according to Herzberg. The changing of these motivating factors has often been described as "Job Enrichment."

Another viewpoint of the organization and its people is that of the sociologist. This approach suggests that the organization itself has the greatest affect on the individuals included in its framework, and these individuals will be molded to the organization despite any basic traits or needs that are present within them. The most stratified of organizations from this standpoint is the bureaucracy.⁵⁸ Perrow points out that while

⁵⁷ Herzberg, F., Work and the Nature of Man, World Publishing Co., 1966.

⁵⁸ Weber, M., The Theory of Social and Economic Organization, Oxford University Press, 1947.

bureaucracy provides us with goods and services which no other form of organization could accomplish, it "shapes the mentality, controls the life chances, and defines our humanity."⁵⁹ He further points out that bureaucracy is likely to be with us for the foreseeable future and that managers must learn to get the best from this inevitable situation. Perrow views bureaucracy as a positive form of organization and seeks to offer ways to use it to advantage. For the MBO user within the federal governmental structure, this outlook may have some relevance.

A third outlook is one in which aspects of organization, technology, environment and people are all taken into account when attempting to analyze and solve organizational management problems. Two men that have been identified with this school are Fiedler and Reddin. Both view management from the standpoint of a situational model, and measure managerial effectiveness as a function of the leadership style properly matching the situation. Fiedler calls this the Leadership Contingency Model⁶⁰ and uses three key situational elements in his approach. They include: power of the leader, degree of structure of the task, and leader-member relations. He has a model if used, he states, should develop an understanding by the manager of the degree of each of the three elements the situation provides for him. He then chooses an appropriate leadership style from the

⁵⁹ Perrow, C., Complex Organizations: A Critical Essay, Scott, Foresman, and Co., 1972.

⁶⁰ Fiedler, F. E., A Theory of Leadership Effectiveness, McGraw-Hill, 1966.

model which matches the situation. Reddin sees the situation slightly differently in his 3-D Theory.⁶¹ His three dimensions are organization, technology and managerial effectiveness. The crux of his approach is to size up the situation through use of his 3-D management model, which should lead the user to the proper style to use for getting the most out of the situation.

Whatever approach the MBO implementer takes to motivate his subordinates, the foregoing supports an observation that people and organizations are complex entities which demand a continuing analysis of the situation over time. The MBO using manager must be responsive to these entities to insure the success of MBO by meeting the situational challenges as they arise.

⁶¹Reddin, W. J., Managerial Effectiveness, McGraw-Hill, 1970.

APPENDIX C

MBO READINESS QUESTIONNAIRE

(Each of the following items describes some aspect of your relationship with your subordinates and coworkers. Read each item and then circle the response (1, 2, 3, 4, 5) which most nearly reflects the extent of your agreement or disagreement. Try to respond according to the way you would actually handle the situation on the job.)

THE BEST WAY TO GET GOOD PERFORMANCE FROM SUBORDINATES IS TO.....		Agree Com- pletely	Mostly Agree	Par- tially Agree	Mostly Dis- agree	Disagree Com- pletely
		(1)	(2)	(3)	(4)	(5)
1.	Allow them extensive freedom to plan and organize their work.	1	2	3	4	5
2.	Allow subordinates to set up special meetings and other ways to work out their differences and conflicts.	1	2	3	4	5
3.	Not give them information unrelated to their immediate work.	1	2	3	4	5
4.	Spell out exactly what their jobs are and what is expected of them.	1	2	3	4	5
5.	Always insist that they solve their own work problems, but be available as a consulting resource to them.	1	2	3	4	5

Question	Response				
	Agree Com- pletely (1)	Mostly Agree (2)	Par- tially Agree (3)	Mostly Dis- agree (4)	Disagree Com- pletely (5)
6. Maintain tight controls on all work to be sure things don't get out of hand.	1	2	3	4	5
7. Provide time, money and other resources so each person can develop his particular strengths and capabilities to the fullest.	1	2	3	4	5
8. Set up systems where information on performance results goes directly to the subordinate instead of the boss.	1	2	3	4	5
9. Discourage subordinate from getting involved in the "why" of doing their job.	1	2	3	4	5
10. Bring subordinates together in joint meetings to make decisions and solve mutual problems.	1	2	3	4	5
11. Give them full information on their jobs, the department and the organization as a whole.	1	2	3	4	5
12. Tell subordinates where they are going wrong and convince them of the merits of changing their attitudes and approaches.	1	2	3	4	5
13. Solve problems for subordinates as quickly as possible so they can get back to work.	1	2	3	4	5

Question	Agree Com- pletely (1)	Mostly Agree (2)	Par- tially Agree (3)	Mostly Dis- agree (4)	Disagree Com- pletely (5)
14. Allow subordinates to take responsibility for controlling and managing their own work.	1	2	3	4	5
15. Encourage subordinates to redesign their jobs around their capabilities.	1	2	3	4	5
16. Leave subordinates alone and count on them to get their jobs done.	1	2	3	4	5
17. Clamp down on conflict and friction between subordinates.	1	2	3	4	5
18. Train subordinates to do their work according to standard procedures.	1	2	3	4	5
19. Insist that subordinates stick to their jobs and leave decisions and planning to you.	1	2	3	4	5
20. Discourage subordinates from introducing new ways of doing their work without first checking with you.	1	2	3	4	5

MBO READINESS PROFILE

S/J SUBORDINATE JOB	S/S SUPERVISOR JOB
How the person sees subordi- nates managing their job	How the person sees himself managing his own job.

MBO Range	9	9
	8	8
	7	7
Transitional Range	6	6
	5	5
	4	4
Non-MBO Range	3	3
	2	2
	1	1

INSTRUCTIONS FOR SCORING THE MBO READINESS QUESTIONNAIRE

1. Circle the following numbers: 1, 10, 11, 15 and 16.
2. X through the following numbers: 2, 5, 7, 8 and 14.
3. Underline the following numbers: 3, 4, 9, 19 and 20.

Place a number "1" beside the circled and X'd questions where the response was either 1 or 2 (agree completely or mostly agree).

4. Place a number "1" beside the underlined and unmarked questions where the response was 4 or 5 (mostly disagree and disagree completely).
5. Add up the "1" for circled and X'd questions and mark the position on the MBO Readiness Profile under the S/J heading (page 110).
6. Add up the "1" for the underlined and unmarked questions and mark the position on the MBO Readiness Profile under the S/S heading (page 110).

HOW TO READ THE MBO READINESS PROFILE

If the score is close to the MBO range on the S/J scale, this is indicative of the way in which the individual perceives his subordinates working under such a system. If the score is low, then further work is needed to make the organization ready for MBO.

If the score is high on the S/S, this is indicative of the way in which the person actually manages or would manage. Again if the score is low, additional indoctrination will be necessary before attempting to introduce MBO.

For best results the two scales, S/J and S/S, should correlate. If they do not, for example, if the S/S scale is lower than the S/J scale, then one should take a look at the various things that the management is actually doing with people which may be contradictory to what management tells them it would like them to do. On the other hand, if the S/S scale is higher than the S/J scale, the situation is probably that management is doing things that allow an individual to function with freedom, as would be required to a certain degree under MBO, however, management has not in fact helped the subordinate to do independent work.

APPENDIX D

OBJECTIVE STATUS CHART

The Objective Status Chart contained on page 114 is designed to provide the manager at any level in an organization with a current and general picture of the progress being made toward achieving a particular objective. An explanation of each section of the chart is as follows:

1. Objective. This section contains the objective being pursued. At each level of the organization, this can be more or less specific as the case warrants. If the objective is at a level other than at the top, then a note may be included indicating a broader objective to which it is keyed.
2. Responsible Unit. This section contains the unit or units responsible for coordinating and completing the objective.
3. Sub-objective/Task. This section contains the sub-objective or task that is to be accomplished in support of the overall objective listed in the objective section.
4. Progress. This section contains the status of progress being made toward achievement of the objective by date by comparing actual progress to previously set milestones. It provides for an immediate recognition by use of colored squares, of those sub-objectives/tasks that present either potential or actual problem areas in the fulfillment of the overall objective.

5. Responsible Unit/Individual and Comments on Progress.

This section contains the unit or individual responsible for completion of the sub-objective or task. It also provides space for comments concerning those sub-objectives or tasks that are potential or actual problem areas.

6. Key. This section provides the key to the progress chart.

The colors green, yellow and red are used to provide for immediate recognition of those areas that need attention.

OBJECTIVE:

UNIT(S) RESPONSIBLE:

[illegible]

KEY:

PROGRESS

MILESTONE

(GREEN)

(GREEN)

(YELLOW)

(RED)

ACTUAL

PROGRESS

ON TRACK

□ POTENTIAL PROBLEM AREA

□ PROBLEM AREA

BIBLIOGRAPHY

BOOKS

1. Beck, A. C., Jr. and E. D. Hillmar, A Practical Approach to Organization Development Through MBO, Addison-Wesley, 1972.
2. Beckhard, R., Organization Development: Its Nature, Origins, and Prospects, Addison-Wesley, 1969.
3. Blau, P. M., "Bureaucracy in Modern Society," Litterer, Joseph A., ed., Organizations: Structure and Behavior, Vol. I, John Wiley & Sons, 1969.
4. Campbell, D. T., and J. C. Stanley, Experimental and Quasi-experimental Designs for Research, Rand-McNally, 1973.
5. Donnelly, J. H., James L. Gibson and John H. Ivancevich, Fundamentals of Management, Business Publishers, Inc., 1971.
6. Drucker, P. F., The Practice of Management, Harper & Row, 1954.
7. Fiedler, F. E., A Theory of Leadership Effectiveness, McGraw-Hill, 1966.
8. Gellerman, S. W., Management by Motivation, American Management Association (Vail-Ballou Press), 1968.
9. Herzberg, F., Work and the Nature of Man, World Publishing Company, 1966.
10. Hughes, C. L., Goal Setting, American Management Association, 1965.
11. Humble, J. W., Management by Objectives, Industrial Education and Research Foundation, 1967.
12. Koontz, H., and Cyril O'Donnell, Principles of Management, McGraw-Hill, 1968.
13. Likert, R., New Patterns of Management, McGraw-Hill, 1961.
14. Mali, P., Managing By Objectives: An Operating Guide to Faster and More Profitable Results, Wiley-Interscience, 1972.

15. Maslow, A. H., Motivation and Personality, Harper & Brothers, 1954.
16. Morrissey, G. L., Management by Objectives and Results, Addison-Wesley, 1970.
17. McGregor, D., The Human Side of Enterprise, McGraw-Hill, 1960.
18. Odiorne, G. S., Management by Objectives, Pitman, 1965.
19. Odiorne, G. S., Personnel Administration by Objectives, Irwin, Inc., 1971.
20. Odiorne, G. S., Training by Objectives, Macmillan, 1970.
21. Perrow, C., Complex Organizations: A Critical Essay, 1972
22. Reddin, W. J., Managerial Effectiveness, McGraw-Hill, 1970.
23. Schleh, E. C., Management by Results, McGraw-Hill, 1961.
24. Terry, G. R., Principles of Management, Irwin, Inc., 6th ed., 1972.
25. Thierauf, R. J., and R. A. Grosse, Decision Making Through Operations Research, Wiley, 1970.
26. Varney, G. H., Management by Objectives, Dartnell Company, 1971.
27. Weber, M., The Theory of Social and Economic Organization, Oxford University Press, 1947.

PERIODICALS AND REPORTS

28. Ackoff, R. L., "Management Misinformation Systems," MIS: Management Dimensions, edited by R. J. Coleman and M. J. Riley, Holden-Day, Inc., 1973.
29. Beck, A. C., and E. D. Hillmar, "OD to MBO or MBO to OD - Does it Make a Difference?" Personnel Journal, November 1972.
30. Brady, R. H., "MBO Goes to Work in the Public Sector," Harvard Business Review, March-April 1973.
31. Carroll, S. J., Jr., and H. L. Tosi, "Goal Characteristics and Personality Factors in a Management-by-Objectives Program," Administrative Science Quarterly, Vol. 15, September 1970.

32. Carvalho, G. F., "Installing Management by Objectives: A New Perspective on Organizational Change," Human Resources Management, Spring 1972.
33. Cathey, P. J., "Management Tools: How 147 Top Executives View Them," Iron Age, July 26, 1973.
34. Duncan, D. M., "MBO at the Operating Level," Supervisory Management, June, 1973.
35. Gill, J. and C. E. Molander, "Beyond Management by Objectives," Personnel Management, July, 1970.
36. Goetz, B. E., "Management by Objectives," Management Accounting, August, 1973.
37. Granger, C. H., "The Hierarchy of Objectives," Harvard Business Review, May-June, 1964.
38. Hoare, D., "Pricking the MBO Bubble," Director, November, 1972.
39. Howell, R. A., "A Fresh Look at Management by Objectives," Business Horizons, Fall 1967.
40. Howell, R. A., "Management by Objectives: A Three Stage System," Business Horizons, February, 1970.
41. Ivancevich, J. M., "Longitudinal Assessment of Management by Objectives," Administrative Science Quarterly, March, 1972.
42. Kleber, T. P., "Six Hardest Areas to Manage by Objectives," Personnel Journal, August, 1972.
43. Kleber, T. P., "Forty Common Goal-Setting Errors," Human Resources Management, Fall 1972.
44. Koontz, H., "How Can Appraisal of Managers be Made Effective," SAM Advanced Management Journal, April, 1973.
45. Lasagna, J. B., "Make Your MBO Pragmatic," Harvard Business Review, November-December, 1971.
46. Levinson, H., "Management by Whose Objectives?" Harvard Business Review, July-August 1970.
47. Mali, P., "Management Climbs the Decision Tree," Administrative Management, January, 1973.

48. Mali, P., "A Practical Scheme that Motivates People," Administrative Management, March, 1973.
49. McConkey, D. D., "Applying Management by Objectives to Non-profit Organizations," SAM Advanced Management Journal, January, 1973.
50. McConkey, D. D., "Implementation - The Guts of MBO," SAM Advanced Management Journal, July, 1972.
51. McConkey, D. D., "MBO - Twenty Years Later, Where Do We Stand?" Business Horizons, August, 1973.
52. McConkey, D. D., "Staff Objectives are Different," Personnel Journal, July, 1972.
53. McConkey, D. D., "Twenty Ways to Kill Management by Objectives," Management Review, October, 1972.
54. Newburn, R. M., "Measuring Productivity in Organizations with Unquantifiable End-Products," Personnel Journal, September, 1972.
55. Odiorne, G. S., "Discipline by Objectives," Management of Personnel Quarterly, Summer, 1971.
56. Raia, A. P., "A Second Look at Management Goals and Controls," California Management Review, Summer, 1966.
57. Reif, W. E., and G. Bassford, "What MBO Really Is," Business Horizons, June, 1973.
58. Samaras, T. T., "Overcome Entropy or Your Organization Dies," The Office, March, 1973.
59. Simpkins, J. J., "Planning for Management by Objectives," Systems and Procedures Journal, January-February, 1966.
60. Tosi, H. L., and S. J. Carroll, "Managerial Reaction to Management by Objectives," Academy of Management Journal, December, 1968.
61. Tosi, H. L., and S. J. Carroll, "Improving Management by Objectives: A Diagnostic Change Program," California Management Review, Fall, 1973.
62. Tosi, H. L., and S. J. Carroll, "Some Factors Affecting the Success of 'Management by Objectives'," Journal of Management Studies, May, 1970.

63. Tosi, H. L., and S. J. Carroll, "Some Structural Factors Related to Goal Influence in the Management by Objectives Process," MSU Business Topics, Spring, 1969.
64. U. S. Bureau of the Budget, Washington, D. C., Measuring Productivity of Federal Government Organizations, 1964.
65. Valentine, R. F., "Laying the Groundwork for Goal Setting," Personnel, January-February, 1966.
66. Walsh, J., "Office of Management and Budget: New Accent on the 'M' in OMB," Science, January, 1974.
67. Zimmerman, F. L., "Roy Ash and his OMB 'Hustlers' Expend Influence Through Much of Government's Day-to-Day Work," The Wall Street Journal, February 1, 1974.

OTHER SOURCES

68. Bureau of Naval Personnel Instruction 1611.12D, dated 16 November 1973, "Report of Fitness of Officers (NAVPERS 1611/1 and 1611/1 (W))."

INITIAL DISTRIBUTION LIST

	No. Copies
1. Defense Documentation Center Cameron Station Alexandria, Virginia 22314	2
2. Library, Code 0212 Naval Postgraduate School Monterey, California 93940	2
3. Chairman, Department of Operations Research and Administrative Sciences, Code 55 Naval Postgraduate School Monterey, California 93940	1
4. Commander, Naval Security Group Command Naval Security Group Command Headquarters (GH) 3801 Nebraska Avenue, N.W. Washington, D. C. 20390	2
5. LCDR R. Yeck Naval Security Group Command Headquarters (GP) 3801 Nebraska Avenue, N.W. Washington, D. C. 20390	1
6. Assoc. Professor G. L. Musgrave, Code 55Mf Department of Operations Research and Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
7. Assoc. Professor R. S. Elster, Code 55Ea Department of Operations Research and Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
8. Lieutenant Commander Paul E. Hargrave, USN 10313 Beaumont Street Fairfax, Virginia 22030	1

Thesis

H224

Hargrave

c.1

Management of U. S.
Navy cryptologic re-
sources using manage-
ment by objectives.

152668

2 AUG 75

23417

94 833 47

23649

19 OCT 76

24755

22 AUG 78

25112

24 JAN 83

28425

JUN 11 85

S12532

Thesis

H224

Hargrave

c.1

Management of U. S.
Navy cryptologic re-
sources using manage-
ment by objectives.

152668

thesH224

Management of U.S. Navy cryptologic reso



3 2768 002 08181 2

DUDLEY KNOX LIBRARY